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PERSONAL.

Mr. N. S. Meldrum, General Manager of the Houston East & West Texas Ry., has resigned.

Dr. Ernst J. Lederle has been appointed Health Commissioner by Mayor-elect Low of New York city.

Mr. W. S. Erwin has been appointed General Manager of the Tullulah Falls Ry., to succeed Mr. S. C. Dunlap, resigned.

Dr. John McGaw Woodbury is appointed to succeed Mr. Percival G. Nagle as Street Cleaning Commissioner of New York city.

Mr. G. P. Johnson has been appointed to succeed Mr. C. A. Shields as Superintendent of the Virginia & Southwestern R. R.

Mr. Ernest G. Barrow, City Engineer of Toronto, Ont., has been granted a six weeks' leave of absence from Dec. 21 to visit England.

Mr. Ernest W. Wicklin has been appointed assistant to the engineer of the Water Board of Detroit, Mich., and not Mr. Ricklin, as recently stated.

Mr. Owen McKay, formerly Engineer of the Lake Erie & Detroit River R. R., has been appointed Chief Engineer, with headquarters at Walkerville, Ont.

Mr. Frank Hynson has resigned his position as Assistant Superintendent of the Smyrna, Del., electric light and water plant, to become Superintendent of a similar plant at Lewes, Del.

Mr. F. L. Sizer, Mining Engineer, has resigned as Manager of the Rosario Mines, Ltd., of Guadalupe-y-Calvo, Mex., and will resume his practice as a consulting mining engineer, with office at Butte, Mont.

Mr. H. S. Burroughs has been taken into the partnership of Ballantyne & Evans, Architects and Engineers, with offices at 20 Nassau St., New York. The firm name of Ballantyne & Evans will be retained.

Mr. Howard J. Cole, M. Am. Soc. C. E., formerly Engineer-in-Chief to the Essex County Park Commission, with office at 800 Broad St., Newark, N. J., has located his office in the Columbia Building, 29 Broadway, New York.

Mr. Rudolph Hering, M. Am. Soc. C. E., and Mr. George W. Fuller, Assoc. M. Am. Soc. C. E., both of New York city, have been engaged to review the plans for the water supply, water purification and sewage disposal of the city of Manzanillo, Mex.

Prof. Shikajiro Hattori, who occupies the chair of civil engineering in the University of Tokio, Japan, is now in this country, inspecting various subjects of engineering interest. He was recently in Chicago inspecting the bascule bridges over the Chicago River.

Mr. E. F. Haas, of Stockton, Cal., junior member of the contracting firm of Clark & Henery, who have the contract for the dredging of the channel to Pearl Harbor, has arrived at Honolulu, H. I., to assist Mr. Henery, of that firm, in the preparations for the work.

Mr. J. Livingston Little, Civil Engineer, has returned to his home in Rochester, N. Y., after an absence of a year and a half spent in Northeastern China. Mr. Little is employed by a Russian mining company prospecting in the province of Mongolia. He will return in February or March.

Prof. E. G. Harris, who for the past 10 years has held the chair of civil engineering in the Missouri School of Mines and Metallurgy at Rolla, Mo., has tendered his resignation, to take effect the first of the year. Professor Harris will occupy a similar position in the University of Pennsylvania.

Mr. Cornelius Vanderbilt, Jun. M. Am. Soc. M. E., of the New York Central & Hudson River R. R., has been appointed by Mayor-elect Low, of New York city, to be a member of the Civil Service Board. Mr. Vanderbilt is a graduate of the Sheffield Scientific School of Yale University, class of 1895.

Mr. J. M. Graham, Chief Engineer of the Baltimore & Ohio Ry., has had his jurisdiction extended to include also the Baltimore & Ohio Southwestern Ry. The position of Engineer of Maintenance of Way of the B. & O. S. W. Ry., made vacant by the appointment of Mr. D. D. Carothers, as Division Superintendent at Chicago, has been abolished.

Mr. Alfred Barr, who, until recently, was connected with the traction lines of Worcester, Mass., will take charge of Elizabeth, Plainfield & Central New Jersey Street Ry. when Mr. David Young discontinues his connection with that road as President. Mr. Young is to retire to look after other interests.

Mr. J. E. Turk, Division Engineer of the Philadelphia & Reading R. R. at Reading, Pa., has been appointed Superintendent of the Wilmington & Columbia Division, with headquarters at Reading, succeeding Mr. A. G. McCausland, resigned. Mr. Edward Shelah, Supervisor of the New York Division, succeeds Mr. Turk.

Mr. David Young has decided to resign as President of the Elizabeth, Plainfield & Central New Jersey Street Ry., in order to give all his time to the Presidency of the Jersey City, Hoboken & Paterson Street Ry. and Vice-President of the North Jersey Street Ry. For a year he has looked after the interests of these three systems.

Lieut. Col. Charles W. Raymond, Corps of Engineers, U. S. A.; Mr. B. M. Harrod, Past-President Am. Soc. C. E., civil member of the Mississippi River Commission, and Mr. John Bogart, M. Am. Soc. C. E., have been appointed by the President as Delegates to represent the United States at the ninth International Engineering Congress, to be held at Dusseldorf, Germany, in June, 1902.

Mr. M. G. Norton, of Winona, Minn., has been elected President of the Winona Bridge Ry. Co. The other officers were elected as follows: Vice-President, J. A. Jordan, Green Bay, Wis.; Treasurer, H. W. Lamberton, Winona; Secretary, H. W. Weiss, Chicago; Assistant Secretary, Thomas Simpson, Winona; Superintendent, D. Cunningham, La Crosse, Wis.; Chief Engineer, L. D. Purdy, La Crosse.

Mr. R. P. C. Sanderson has been appointed Superintendent of Motive Power of the Seaboard Air Line Ry., with headquarters at Portsmouth, Va., succeeding Mr. F. H. McGee. Since Aug. 20 last, Mr. Sanderson has been General Purchasing Agent of the Seaboard Air Line. He was formerly connected with the Norfolk & Western R. R. as Division Superintendent of Motive Power, Assistant Superintendent of Motive Power and Division Master Mechanic.

Mr. Gustav Lindenthal, M. Am. Soc. C. E., has been appointed Commissioner of Bridges by Mayor-elect Seth Low at a salary of $7,500 per year. Mr. Lindenthal is an Austrian by birth and was educated in Vienna. He came to the United States in 1874, after considerable experience in railway and bridge construction in Austria and Switzerland, and was one of the engineers for the Centennial Exposition at Philadelphia. After 1876 he was located in Pittsburg, Pa., and he designed and built several important railway and city bridges and had a large practice as consulting engineer. He was early interested in the construction of a bridge across the Hudson River at New York, and was the first engineer to propose and design a single suspension span of 3,000 ft.; for years he was Chief Engineer and then President of the North River Bridge Co. In 1892 Mr. Lindenthal took up his permanent residence in New York in this connection. He is a Member of the American Society of Civil Engineers and of the Institution of Civil Engineers, of London, as well as of other technical societies.

OBITUARY

Mr. Joseph Bonanno, who has been one of the engineers of the Croton Aqueduct since 1884, died on Dec. 12 at his home in New York.

Mr. George Crossley, Civil Engineer, in the employ of the Pittsburg Coal Co., who was burned in an explosion of gas in the Grindstone mine of the company, at Brownsville, Pa., on Dec. 3, died Dec. 9 of his injuries. Mr. Crossley was 21 years of age, and was born in Belfast, Ireland.

Mr. Frederick Albert Spencer, formerly a Civil Engineer, died in Waterbury, Mass., on Dec. 8. Mr. Spencer was born in that place in 1833. He was educated in that locality and for a time engaged in civil engineering and mining in Kansas and Colorado. For several years he was connected with the Waterbury Brass Co.

Capt. James J. Meyler, Corps of Engineers, U. S. A., died at his home in Newark, N. J., on Dec. 12, of pneumonia, from which he had been a sufferer for three weeks. Captain Meyler was born in Newark and was graduated from West Point in 1886. For the past four years he was in charge of the harbor improvements at Los Angeles, Cal.

Mr. Charles W. Lundy, Superintendent of the Direct United States Cable Co., died at the Victoria General Hospital, in Halifax, N. S., on Dec. 16, at the age of 68. Mr. Lundy was electrician on the Great Eastern when the first successful Atlantic cable was laid in 1865 between Valentia, Ireland, and Heart's Content, Newfoundland, with which Cyrus W. Field was associated. He was Superintendent of the Anglo-American cable at Heart's Content at the age of 22. Thence he went to Madras, India, and in 1875 he entered the Direct United States Company's service as American Superintendent.

Mr. William Van Slooten, Mining Engineer, and at the head of a mining concern with offices in New York city, committed suicide on Dec. 14 at his home in Brooklyn, N. Y., by shooting himself. Mr. Van Slooten was suffering from a temporary derangement of the mind, resulting from a fever which he contracted while in South America several months ago. He was 44 years of age, and was born in New Orleans. He was educated at the University of Virginia and graduated from that institution when 19 years of age. Later he became interested in various mining enterprises in Arizona, South America and elsewhere.

Mr. Alfred M. Underhill, Engineer of Maintenance of Way on the main line of the Vandalia Line, died Dec. 17 of heart failure, aged 36 years. Mr. Underhill was born in New York, and was educated at Haverford College. Entering railroading in 1886 as a draftsman on the Chicago, St. Louis & Pittsburg, he became by successive stages Assistant Engineer of the Pittsburg Division of the Pittsburg, Cincinnati, Chicago & St. Louis, Assistant Engineer on the Chicago Division of that road, Engineer Maintenance of Way, Peoria Division, Terre Haute & Indianapolis, and Engineer of Maintenance of Way of the Vandalia Line.

Mr. William Rich Hutton, an accomplished civil engineer well known in the United States, died on Dec. 11 at Clopper, the family estate in Montgomery county, Md. Mr. Hutton was born in Washington, D. C., March 26, 1826. His first professional occupation was Assistant Engineer in connection with the location—in 1853-54—of the Metropolitan Railway, between Washington and Frederick, Md. From 1855 until 1861 he was Division Engineer on the Washington Aqueduct, and was the Chief Engineer of that work in 1862-63. From 1865 to 1866 Mr. Hutton was Chief Engineer of the Annapolis water-works; he was then—1869-71—Chief Engineer of the Chesapeake & Ohio Canal and completed the masonry dam on the Potomac; in 1872 he was Chief Engineer of the West Maryland R. R., and Consulting Engineer of the Annapolis & Elk River and the Baltimore & Drum Point railways and also on the Chesapeake & Ohio Canal. Later than this he designed for the government the movable dam on the Kanawha River; was Consulting Engineer of the Colorado Midland Railway; was connected with the design and construction of parts of the new Capitol at Washington, and was engineer for a number of water-works in this country. Among his later prominent works is the handsome metal arch Washington Bridge over the Harlem, of which he was Chief Engineer; he was also for a time Chief Engineer of the Hudson River tunnel, and he submitted a design for the Memorial bridge over the Potomac. Mr. Hutton was elected a Member of the American Society of Civil Engineers Jan. 8, 1873, and he was Vice-President of that society and served for years upon its Board of Directing. He was made a Member of the Institution of Civil Engineers, of England, on Dec. 2, 1890, and was a member of a number of other technical societies and clubs of this country. Mr. Hutton will always be remembered by his many friends for his charming personality and for his wide information and close study in all matters pertaining to his profession.

ENGINEERING SOCIETIES.

COMING MEETINGS.

AMERICAN ECONOMIC ASSOCIATION.
Dec. 27 to 30. Fourteenth annual convention at Washington, D. C. Acting Secy., Frank A. Fetter, Cornell University, Ithaca, N. Y.

MICHIGAN ENGINEERING SOCIETY.
Jan. 7, 8 and 9, 1902. Annual meeting, Grand Rapids, Mich. Secy., F. Hodgman, Climax, Mich.

AMERICAN SOCIETY OF CIVIL ENGINEERS.
Jan. 15, 1902. Annual meeting at New York city.

ILLINOIS SOCIETY OF ENGINEERS AND SURVEYORS.
Jan. 22, 23, 24. Annual meeting at Joliet, Ill. Secy., A. L. Kuehn, Urbana, Ill.

INDIANA ENGINEERING SOCIETY.
Jan. 29, 30, 31. Annual meeting at Indianapolis, Ind. Secy., G. C. Brown, Indianapolis.

BROOKLYN ENGINEERS' CLUB.—The annual meeting, held at the Oxford Club on Dec. 12, was preceded by a dinner, thoroughly enjoyed by all present. At the business meeting officers were elected for the coming year as follows: Pres., Wm. G. Ford; Secy., A. J. Provost, Jr.; Treas., Geo. C. Whipple.

INTERNATIONAL ASSOCIATION FOR TESTING MATERIALS.—The members have been notified that the council is preparing a collected edition of the regular publications of the congress in French and German. If a sufficient number of members shall subscribe for this edition, it will be furnished them at cost price. Single papers will not be issued. The whole collection will, however, be divided into three sections, which may be had separately. These will cover the subjects of (1) metals, (2) natural and artificial building stone, mortars and cements, (3) other materials of engineering construction. The cost of the new edition cannot yet be stated, but will not exceed 15 to 20 francs. Pres., L. von Tetmajer, Vienna.

WESTERN RAILWAY CLUB.—The Executive Committee has selected the following members to form the committee on draft gear, pursuant to a resolution passed at the October meeting: W. H. Marshall (L. S. & M. S. Ry.), J. F. Deems (C., B. & Q. Ry.), T. W. Demarest (P., C., C. & St. L. Ry.), C. A. Schroyer (C. & N. W. Ry.), and Charles Lindstrom (C. & A. Ry.). The committee is to consider and report upon certain questions relative to draft gears in their relation to the whole car, and it will work in conjunction with the similar committee of the Master Car Builders' Association. The latter committee will undertake laboratory tests on the testing machine at Altoona, while the Western Railway Club committee will undertake some road tests with the aid of a dynamometer car.

NEW ENGLAND WATER-WORKS ASSOCIATION.—The December meeting of this association was held at Young's Hotel, Boston, on Dec. 11. About 100 members and guests were in attendance. Mr. Edward S. Larned, Division Engineer of the Metropolitan Water-Works, presented an interesting paper on "Swamp Drainage for Water-Shed Improvement," illustrated by stereopticon. An abstract of the paper and ensuing discussion is given elsewhere in this issue. Mr. Freeman C. Coffin, Chairman of the Committee on Standard Specifications for Cast-Iron Pipe, presented a report of the committee, which was printed in full in our issue of Dec. 5. He said, however, that it was the desire of the committee that this be considered as a preliminary report, which will probably be modified as a result of the discussion. The discussion, which is abstracted elsewhere in this issue, was so full and interesting that it was decided to continue it at the January meeting. The report of the Committee on Uniform Statistics was necessarily deferred to another meeting. Mr. C. W. Sherman, editor of the "Journal" published by the association, stated that he had had printed blank forms embodying the recommendations of the committee, which were but slight modifications of the form previously used, and asked that the association endorse the use of these blanks in preparing the summary for 1901, and this the meeting voted to do.

NEW PUBLICATIONS.

NATIONAL RIVERS AND HARBORS CONGRESS.—Report of the Proceedings. Paper; 6 × 9 ins.; pp. 129. Wm. H. Love, Secy., Baltimore, Md.

The assembly whose proceedings are here reported was held at Baltimore on Oct. 8 and 9 last. Among those who addressed the convention and whose speeches are here printed were Messrs. J. A. Ockerson, L. Y. Schermerhorn, Col. Wm. P. Craighill, and Prof. L. M. Haupt. The most valuable address in the proceedings, we believe, was that made by Hon. Theo. E. Burton, of Ohio, Chairman of the House Committee on Rivers and Harbors. He discussed the reforms needed in the methods of providing for and conducting river and harbor work, a subject to which the Baltimore Congress might profitably have devoted more attention.

PROCEEDINGS OF THE AMERICAN RAILWAY MASTER MECHANICS' ASSOCIATION.—Report of the 34th Annual Convention, held at Saratoga, N. Y., June 19, 20 and 21, 1901. Cloth; 8vo.; pp. 392; illustrated. J. W. Taylor, Secy., Rookery Building, Chicago.

This annual volume contains a full record of the proceedings of the convention, including the reports presented, the discussions, and the general business transacted by the association. The subjects taken up for consideration now include those which affect the relations of the motive power department to the operating department. Thus, among the most important reports are those on "Cost of Running Trains at High Speed," "Reduction in Locomotive Fuel Consumption," and "Practical Tonnage Rating," while those on Roundhouses, Handling Coal, and the Cleaning and Setting of Boiler Tubes deal with important matters of detail in the practice of the motive-power departments. Various other subjects are treated of, and several papers are devoted to the standards and recommended practice of the association, including specifications for materials and the methods of conducting efficiency tests of locomotives. The book is well printed and has numerous illustrations, several of these being on folding sheets.

TRADE PUBLICATIONS.

(The standard sizes for pamphlets and trade catalogues recommended by all the principal engineering societies of the United States are: 3½ x 6 ins., 6 x 9 ins., and 9 x 12 ins.)

SEAMLESS STEEL.—The Standard Welding Co., Cleveland, O. Paper; 3½ × 6 ins.; pp. 8

Prices of seamless steel tubes and wheel-rims of various sections are given.

STEAM TURBINES.—De Laval Steam Turbine Co., New York, N. Y. Paper; 6 × 9 ins.; pp. 48; illustrated.

The De Laval steam turbine was described in Eng. News of Oct. 24, 1901.

RECORDING GAGES.—The Bristol Co., Waterbury, Conn. Paper; 9 × 12 ins.; pp. 12; illustrated.

Automatic recording pressure gages are listed here. They are made for all ranges of pressure, both above and below atmospheric.

ASSAYING.—G. E. Alexander, McPhee Building, Denver, Colo. Paper, 3½ × 6 ins.; pp. 12.

This is an illustrated description of the ore-testing plant and metallurgical laboratory and their equipment. Prices for assaying, etc., are given.

CORLISS ENGINES.—Sullivan Machinery Co., Chicago, Ill. Paper; 6 × 9 ins.; pp. 40; illustrated.

Catalogue No. 45 describes the Sullivan Corliss engine, developed from a type formerly built by the M. C. Bullock Co. A variety of styles are made.

ELECTRICAL MACHINERY.—Wagner Electric Mfg. Co., St. Louis, Mo. Paper; 6 × 9 ins.; pp. 12; illustrated.

This is Bulletin W-46 of this company. It discusses single-phase alternating current motors designed to be entirely automatic in start and operation.

HOISTING ENGINES.—Rawson & Morrison Mfg. Co., Boston, Mass. Paper; 12 × 9 ins.; pp. 125; illustrated.

This catalogue shows hoists, hoisting engines and boilers in great variety. Particulars, dimensions, etc., in conjunction with the illustrations, bring out all important features.

VALVES AND PIPE SPECIALTIES.—Best Mfg. Co., Pittsburg, Pa. Paper; 3½ × 6 ins., 6 × 3 ins., 6 × 8 ins.; illustrated.

These pamphlets describe pipe bends, Heston blow-off valves, tuyere cocks, pipe unions, gate and reducing valves, etc.

OIL BURNER.—American Crude Oil Burner Co., 52 Second St., San Francisco, Cal. Paper, 6 x 7 ins.; pp. 4; illustrated.

This pamphlet describes the "American" crude oil burner for boiler furnaces, etc., and gives some testimonials as to its use.

SHAKING GRATES.—M. H. Treadwell & Co., 95 Liberty St., New York, N. Y. Paper; 6¼ × 3½ ins.; pp. 16; illustrated.

The "Tread-kill" improved shaking grate is brought out in this booklet. Great durability and large air space are claimed for it.

SEWER PIPE.—Union Sewer Pipe Co., Red Wing, Minn. Paper; 3½ × 6¼ ins.; pp. 24; illustrated.

This contains price-lists of pipe and drain tile, and describes the use of vitrified clay pipe for culverts, gutters, water and gas mains, well lining, electric conduits, catch basins, etc.

STEAM ENGINES.—Quincy Engine Works, Quincy, Ill. Paper; 9 × 6 ins.; pp. 35.

The Williams Corliss engine, a vertical compound, is briefly presented to the trade in this booklet, and a list is given of the sizes built, the proper pressures and speeds and the power developed being noted for each size.

RECORDING THERMOMETERS. — The Bristol Co., Waterbury, Conn. Paper; 9 × 12 ins.; pp. 16; illustrated.

The recording thermometers, similar in style to the other recording instruments made by this company, are built for various uses and temperature ranges. Electric alarms can be furnished.

CONSTRUCTION NEWS.

CONDENSED LIST OF CONTRACTS PENDING WITH DATE OF OPENING BIDS.

Bids to be opened	Work.	Place.	See Eng. News.
Dec. 19.	Driving piling,	New York, N. Y.	Dec. 12
Dec. 19.	Paving,	Nashville, Tenn.	Dec. 5
	Advertised, Eng. News, Dec. 5 and 12.		
Dec. 19.	Cement,	Washington, D. C.	Dec. 5
	Advertised, Engineering News, Dec. 5.		
Dec. 19.	Sewer,	Nashville, Tenn.	Dec. 5
	Advertised, Eng. News, Dec. 5 and 12.		
Dec. 20.	Viaduct superstructure,	Buffalo, N. Y.	Dec. 5
	Advertised, Eng. News, Dec. 5 and 12.		
Dec. 20.	River work,	Utica, N. Y.	Dec. 5
	Advertised, Eng. News, Dec. 5 and 12.		
Dec. 20.	Portable wall telephones,	Washington, D.C.	Nov. 28
Dec. 20.	Water supply well,	Ridgefield, Conn.	Dec. 12
	Advertised, Engineering News, Dec. 12.		
Dec. 20.	Park supplies, etc.,	Philadelphia, Pa.	Dec. 12
Dec. 20.	Boilers,	Kansas City, Mo.	Dec. 12
	Advertised, Engineering News, Dec. 12.		
Dec. 20.	Addition to asylum,	Baltimore, Md.	Dec. 12
Dec. 20.	Bridge,	Memphis, Tenn.	Dec. 12
Dec. 20.	Water and sewer bonds,	Takoma Park, Md.	Dec. 19
Dec. 21.	Pumping engine,	Port Huron, Mich.	Dec. 12
Dec. 21.	Bridge supr. and aprchs,	Cincinnati, O.	Nov. 28
Dec. 21.	Light-house tender,	Baltimore, Md.	Dec. 5
	Advertised, Engineering News, Dec. 5.		
Dec. 23.	Paving blocks,	Detroit, Mich.	Dec. 19
Dec. 23.	Boiler, dynamo, etc.,	Madisonville, O.	Dec. 19
Dec. 23.	Excavating,	St. Louis, Mo.	Dec. 19
	Advertised, Engineering News, Dec. 19.		
Dec. 23.	Pumps, etc. (Fire),	New York, N. Y.	Dec. 19
Dec. 23.	Sewers,	Boston, Mass.	Dec. 19
Dec. 23.	Bridge timber (100,000 ft.),	Winona, Minn.	Dec. 19
Dec. 23.	Sewer,	Topeka, Kan.	Dec. 19
Dec. 23.	Lead, taps, stops, etc.,	Providence, R. I.	Dec. 19
Dec. 23.	Sewers,	Pueblo, Colo.	Dec. 5
Dec. 23.	Water-works,	Riverdale, Ill.	Dec. 12
	Advertised, Engineering News, Nov. 28.		
Dec. 23.	Light station,	Portland, Ore.	Dec. 12
Dec. 23.	School,	New York, N. Y.	Dec. 12
Dec. 24.	Macadamizing,	Boston, Mass.	Dec. 19
Dec. 24.	Water tunnel, etc.,	Cincinnati, O.	Nov. 28
	Advertised, Eng. News, Nov. 28 to Dec. 19.		
Dec 24.	Bridge superstructure,	Buffalo, N. Y.	Dec. 12
Dec. 26.	Brick storehouse,	Mobile, Ala.	Nov. 28
	Advertised, Eng. News, Nov. 28 to Dec. 19.		
Dec. 26.	Artesian well,	San Jose, Cal.	Nov. 28
Dec. 26.	Sewer pipe,	Omaha, Neb.	Dec. 5
Dec. 26.	Light-house repairs,	Mobile, Ala.	Dec. 19
Dec. 26.	Water mains,	New York, N. Y.	Dec. 19
Dec. 26.	School,	Jersey City, N. J.	Dec. 19
Dec. 26.	Sewers,	Buffalo, N. Y.	Dec. 19
Dec. 27.	Ice plant,	Indianapolis, Ind.	Dec. 19
Dec. 27.	Bridge approach,	Kane, Pa.	Dec. 19
Dec. 27.	Road improvements,	Pittsburg, Pa.	Dec. 19
Dec. 27.	30-in. water main,	Kansas City, Mo.	Dec. 19
	Advertised, Engineering News, Dec. 19.		
Dec. 27.	Building (interior),	Washington, D. C.	Dec. 5
	Advertised, Eng. News, Dec. 5 to 26.		
Dec. 27.	Bridge,	Harrisburg, Pa.	Dec. 12
Dec. 28.	Electric plants,	England	Dec. 12
Dec. 28.	Boilers (2),	Bremerton, Wash.	Nov. 28
Rec. 28.	Road improvements,	Cincinnati, O.	Dec. 5
Dec. 28.	Repairing light station,	Mobile, Ala.	Dec. 5
	Advertised, Eng. News, Dec. 5 and 12.		
Dec. 28.	Park Comfort House,	New York, N. Y.	Dec. 19
Dec. 28.	Asphalt tiles, etc.,	New York, N. Y.	Dec. 19
Dec. 28.	Extending water-works,	Collinsville, Ill.	Dec. 19
	Advertised, Engineering News, Dec. 19.		
Dec. 28.	Grading (20,000 yds.),	Washington, D. C.	Dec. 19
	Advertised, Engineering News, Dec. 19.		
Dec. 30.	Repairing roofs,	New York, N. Y.	Dec. 19
Dec. 30.	Institute building,	New York, N. Y.	Dec. 19
Dec. 30.	Improvement bonds,	Ponce, P. R.	Dec. 19
Dec. 30.	Macadamizing,	Paterson, N. J.	Dec. 19
Dec. 30.	Bridge superstructure (2),	Cincinnati, O.	Dec. 19
	Advertised, Eng. News, Dec. 19 and 26.		
Dec. 30.	Depot,	Mobile, Ala.	Dec. 5
	Advertised, Eng. News, Dec. 5 to 19.		
Dec. 30.	Electric plant,	San Francisco, Cal.	Dec. 12
Dec. 31.	Cement paving,	National Military Home, O.	Dec. 5
No date.	Drainage canals (620 mls),	Argentine Rep.	Nov. 7
"	Irrigation canal,	Abbeville, La.	Nov. 28
	Advertised, Eng. News, Nov. 28 to Dec. 19.		
No date.	Timber and stone,	Montreal, Que.	Dec. 19
"	Iron, cement, etc.,	Montreal, Que.	Dec. 19

RAILWAYS.

EVANSVILLE & MT. VERNON.—W. M. Ford, Secy., New Harmony, Ind., informs us that the capital for constructing this 20-mile line has been assured, but nothing definite regarding the construction can be said at this time. The road will probably enter Evansville, Ind., over the street railway tracks. The franchise in Mt. Vernon has not yet been secured.

FORT SMITH & WESTERN.—Contracts for the construction of this road from the present terminus, 30 miles west of Fort Smith, Ark., to Guthrie, are reported to have been let as follows: The Cherryvale Construction Co. has the contract for that section of the new line from the present terminus to the M. K. & T. Road, near South McAlester, Ind. Ter. A. R. McDonald, Kansas City, Mo., will build from that point to the Canadian River, and Fruin & Bambrick, St. Louis, Mo., from there to Guthrie. The extension will have a length of 120 miles.

GREAT NORTHERN R. R. OF CANADA.—O'Hern & Williams, contractors, 335 South Broadway, Yonkers, N. Y., have closed a contract with this company for 63 miles of road from Gartreau Junction to St. Catherine, 23 miles from Quebec. The cut-off will shorten the line 17 miles. About 1,000,000 cu. ft. of excavation will be necessary, all of which will be sand, excepting about 17,000 cu. yds. of rock. Some 12,000 cu. yds. of first and second-class masonry work will be done. It is the intention of sub-letting the greater portion of the work. The clearing, 340 acres, will be started next month and the grading in the early spring. The time of completion of the work is Nov. 1, 1902.

MAGANETEWAN RIVER RY.—A contract is reported to have been closed on Dec. 4 by this company and the Grand Trunk R. R. for the construction of the first division of the line to Sault Ste. Marie, connecting Burk's Falls on the North Bay Division of the Grand Trunk road with the head of navigation on the Maganetewan River. It will be 12 miles long and will cost about $50,000.

MARYLAND & PENNSYLVANIA.—Thos. M. A. Ward, Engr., Baltimore, Md., writes us as follows regarding improvements made by the company during the past year: "During the year just closing, the company has made the following improvements: Three truss bridges have been erected at Gunpowder River, Winters River and Deer Creek, and a steel viaduct, 377 ft. in length, is just being completed to take the place of a wooden trestle near Oakleigh, Baltimore county, Md. The Baltimore terminal has been improved by the erection of a train shed, and improved warehouse facilities. Additions have also been made at the York end. Three locomotives from the Richmond Works have been added to the equipment and two Baldwin's are expected to be delivered in a few days."

MEMPHIS & ST. LOUIS OF NEW MADRID.—A charter has been secured in Missouri, capitalized at $500,000. It is the company's purpose to build a standard gage railway from a point on the St. Louis & Memphis R. R. near Pawpaw Junction to Gray's Point, in Scott county, a distance of 50 miles. Seth S. Barnes, Laura; Wm. A. and Clara L. Barnes and Lawrence Fischer, all of New Madrid, Mo., are the incorporators.

NEW BRUNSWICK & TRENTON.—A charter has been filed by this road in New Jersey with a capital of $1,000,000, to build and operate a road from Milltown to Trenton, N. J., crossing the Pennsylvania R. R. at Monmouth Junction. The line will be 33 miles in length, and it is thought that the line will absorb the Raritan River R. R., running from New Brunswick via Milltown to South Amboy, thus giving a straight line from tide water to Trenton. The Pennsylvania is reported interested in the new company. S. L. Meade, Merchantville, N. J.; R. C. Mason, Camden; Barton Lucas, Gibbsboro; H. B. McCullom, Philadelphia, and others are reported interested.

PEMBROKE SOUTHERN.—J. G. Forgie, Solicitor, Pembroke, Ont., has applied to the legislature for permission to extend this line from Pembroke, Ont., through the townships of Pembroke and Ross to the Ottawa River.

PENNSYLVANIA R. R.—A project is announced by this company to build connecting roads between New Jersey and New York by tunneling under the North River, and connections between New York and Brooklyn by tunnel under the East River, giving through connections for its trains with New York city and over the Long Island R. R. to Montauk Point, L. I. Plans to this purpose are now being prepared for the company by Jacobs & Davies, Consulting Engrs., 32 Nassau St., New York. They call for two tunnels under the North River, entering Manhattan at 31st and 32d Sts., running to the central underground station at Seventh Ave. and 33d St. In Manhattan, east of the central station, there will be three tunnels. The system will be carried under the East River, entering the Borough of Queens at Flushing St. and Borden Ave. The tunnels for the North River will be of steel, running under the river bed, each resting on piers running down to rock bed at a distance of about 150 ft. At distances of 150 ft. these caissons will be sunk, and will be connected inside the tube by steel trusses, forming a continuous bridge. The tunnel in Manhattan will be of a depth from 50 to 90 ft. below the street level. Under the East River it will reach a depth of 35 ft. below the river bottom. The terminal station will comprise a series of buildings, covering two city blocks in New York, namely, 31st St. to 33d St., between Seventh and Eighth Aves. The motive power to be used on the tunnel road will be electricity. The cost of the work is not announced by the company, but it is estimated at between $20,000,000 and $50,000,000. Applications for franchises and permission to carry out the enterprise will shortly be made. The work of completing the North River tunnel it is estimated will require three years' time. A. J. Cassatt, Pres.; Samuel Rea, Fourth Vice-Pres.; W. H. Brown, Ch. Engr., Philadelphia, Pa.

PENNSYLVANIA R. R.—The contract for building a tunnel adjoining the old Portage tunnel on the main line of this road near Gallitzin, Pa., has been awarded to P. F. Brendlinger, Philadelphia. Work is to be begun at once. The tunnel will be single track, 3,600 ft. in length. This work was advertised in Engineering News.

PHILADELPHIA & READING.—Surveys are reported to have been made for an 11-mile extension along the west bank of the Susquehanna River for the purpose of obtaining coal dockage privilege at the head of the Chesapeake Bay.

PHILADELPHIA, WILMINGTON & BALTIMORE.—The Pennsylvania R. R. has awarded a contract to Gonder & Brownbuck, contractors, Strasburg, Pa., for the change of line at Eddystone, Pa., the work to involve the removal of about 250,000 yds. of excavation and 10,000 yds. of bridge masonry.

TRINITY VALLEY SOUTHERN.—This company has been incorporated in Texas with a capital stock of $20,000, to build a line from Dodge to Cold Springs, 20 miles. The office will be in Oakhurst, Tex. The incorporators are J. T. Pinkley, D. R. Baker, E. J. Dupree and others of Oakhurst.

TENNESSEE & NORTH CAROLINA.—This line has been completed from Newport, Tenn., to Hartville, a distance of 12 miles, and trains are now running on that sec-

tion. It is now stated that the line will be extended further through the mountains of Western North Carolina and connect with the Seaboard Air Line, to a point at or near Waynesville. The distance is 60 miles. It is further stated a road from Newport via Sevierville to Knoxville will be built. The road is being built by Hart & Holloway, Wheeling.

WABASH R. R.—This company is said to be considering the purchase of the Bellaire, Zanesville & Cincinnati R. R., a narrow gage road running from Zanesville, O., to Bellaire. In connection with the purchase of the Bellaire, Zanesville & Cincinnati road, a line will be built from a point east of Zanesville, O., south to Parkersburg or Marietta.

WADLEY & MOUNT VERNON.—At a meeting of the stockholders of this company on Nov. 23 it was decided to amend the charter and provide for an extension from Valdosta to Rixville, Ga. The branch will be 140 miles long and will give an air line from Valdosta to Augusta. It will traverse the counties of Emanuel, Montgomery, Laurens, Dodge, Telfair, Wilcox, Coffee, Irwin, Berrien, Clinch and Lorondes. T. J. James, Pres., Adrian, Ga.

WARRIOR SOUTHERN.—The contract for the construction of this line has been let to W. J. Oliver Co., Columbia, S. C., and work will begin at once. The Warrior Southern R. R. is the extension of the Mobile & Ohio road, and will run to Searles, Ala., where the Central mines are located.

WASHINGTON TERMINAL.—Articles of incorporation have been filed by this company to construct new terminals and tracks for the Baltimore & Ohio R. R. in the city of Washington, D. C. The company is capitalized at $5,000,000. George A. Hamilton, Washington, D. C.; G. L. Potter, Baltimore, Md., and Leo P. Harlow, Alexandria, Va., are interested.

WHITEHALL & GRANVILLE.—R. C. Smith, Ch. Engr., Granville, N. Y., has located and secured the rights of way from Whitehall to Granville and West Pawlet, about 20 miles. Construction was started last July and is well under way. Track will be laid on this section early in the spring.

ZANESVILLE, MARIETTA & PARKERSBURG.—This company was incorporated on Dec. 12 at Columbus, O., by R. C. Burton, Zanesville; J. T. Blair, Greenville, Pa.; P. B. Crosby, Marietta, and others to build a line connecting those points. The surveys will be started at once, and the route will follow the east side of the Muskingum River to Marietta. R. P. Vandusen, Columbus, will have charge of the work of surveying.

STREET AND ELECTRIC RAILWAYS.

PITTSFIELD, MASS.—The board of aldermen have granted a franchise to the Pittsfield St. Ry. to build lines on Dalton Ave. and East End Ave. These lines will cover the proposed extension to the Stanley shops. J. Tucker, Pres.

NEW HAVEN, CONN.—A meeting of the parties interested in the trolley line from Litchfield to Watertown was recently held in this city for the purpose of receiving data from the preliminary surveys that have been made. The proposed road will cost about $175,000, and will be 11 miles long. T. H. McKenzie, Southington, has procured a charter for the road.——The capacity of the power plant of the Fair Haven & Westville R. R. on Grand Ave. is to be doubled, at a cost of about $500,000. The West Haven plant will be abandoned.

BALLSTON SPA, N. Y.—The board of trustees has granted the application of the Ballston Terminal R. R. for a franchise in this place.

BATH, N. Y.—The highway commissioners have granted a franchise to Johnstone, McGahen & Co. for the proposed electric road through this town, from the Avoca to the Campbell town lines.

KEESEVILLE, N.Y.—G. N. Kingsland, Gen.Mgr. Keeseville, Ausable Chasm & Lake Champlain Electric Ry., informs us that the survey has been made from this place to Upper Jay, about half the distance, and rights of way have been secured for the entire length of line, 40 miles. The capital is not wholly secured, but it is hoped will be so that contracts can be let in the next few months. This line will touch at Ausable Forks, Jay, Upper Jay, Keeseville, and Lake Placid. Edmond K. Bober, Pres.

MONTICELLO, N. Y.—The Monticello, Fallsburgh & White Lake Traction Co. has let the contract for constructing its road to Macatee & Co., Philadelphia. The road between Monticello and Failsburgh is to be built by July 1, 1902.

ROCHESTER, N. Y.—The state railroad commission has granted a certificate to this company. Work on its road will begin at once, it is reported, and is expected to be finished by early summer. The company is capitalized at $250,000. A. H. Bowen, Pres., Penfield; DeWitt C. Becker, Vice-Pres., Fairport; P. R. McPhail, Secy., Rochester.

LEECHBURG, PA.—S. J. McMains, Secy., Leechburg, writes us that a charter has been obtained for the Leechburg, Freeport & Tarentum Electric R. R., and the work of securing the rights of way is now progressing. The road will run through Leechburg, Freeport, Brackenridge, Natrona and Tarentum, and will be 14 miles in length. R. B. Scandrett, Pres., Pittsburg; Geo. B. Findlay, Ch. Engr., Freeport, Pa.

NEWTOWN, PA.—The Newtown & Yardley Electric Ry. has passed into the hands of the Johnson syndicate, and, is reported, will be pushed through to completion by early spring. The line is to be six miles long. Surveys are under way.

PITTSBURG, PA.—Local papers state that within a few weeks the first contracts for constructing the new Pittsburg & Mt. Washington St. Ry. will be placed. Work is to be started early in the spring and will be hurried through to completion. The construction does not present any difficult engineering problems, and there will be but little grade. A tunnel through Mt. Washington, 3,600 ft. long, will be bored. The company is capitalized at $3,000,000. Wm. Flinn, John S. Weller and Addison F. Holliday are interested.

WILLIAMSBURG, PA.—H. W. Phillips, of this place, informs us that he believes that the work of securing rights of way, and making surveys for the Yorktown, Poquassin & Hampton R. R. is finished, and that the capital is secured. The road will be operated by electricity, and be 20 miles in length. It is not known when awards for the construction will be made. O. D. Jackson, Pres., Norfolk, Va.

BESSEMER, ALA.—The Birmingham Ry., Light & Power Co. has purchased the Bessemer Electric Co.'s plant and will rebuild it, electrizing the dummy lines to Birmingham.

CAMDEN, O.—The construction of the Fort Wayne, Dayton & Cincinnati Traction Co.'s line of railway has been started. Nearly all of the rights of way over private grounds have been obtained and franchises secured. The road will be about 400 miles in length. It will be operated by electricity, using a third-rail system, and will have but one power house, which will be located at Celina, O. The cost of the construction of the entire road is estimated at $7,000,000. Dr. S. F. George, Pres., Dayton.

DANVILLE, KY.—The right of way for the Danville Electric Power & Ry. Co.'s line running from this place to Shelby City and Junction City, has been obtained. A. A. Robertson, Danville, advises us as above, and says that the capital is as yet unprovided for. The line will be an electric one, 8 miles long. Geo. F. Anderson, Pres., Danville.

COLUMBUS, O.—The Dayton & Kenton Ry. Co. has been incorporated to build an electric railway between Dayton and Kenton, through Montgomery, Miami, Clark, Champaign, Logan, Shelby and Hardin counties. Provision is made for branch lines. The capital stock is $2,500,000, and some of the incorporators are as follows: Herbert S. Forgy, Chas. L. Hubbard and E. M. Hopkins.

COLUMBUS, O.—The Ripley, Georgetown, Hillsborough & Columbus Ry. has been incorporated with a capital stock of $10,000 by M. McKeehan, A. M. Kautz and W. J. Marshall. The purpose of the company is to build an electric railway from Ripley to Columbus, passing through the counties of Brown, Highland, Fayette, Rickaway, Madison and Franklin, and touching Georgetown, Sardinia and Hillsborough.

UPPER SANDUSKY, O.—The Tiffin & Southern Electric Ry., to run from Tiffin through this place to Kenton, has been incorporated in West Virginia, with a capital stock of $500,000, by Michael Riley, Pittsburg; Judge Smalley, Upper Sandusky; A. M. Smalley, Toledo, and others.

INDIANAPOLIS, IND.—An electric railway company has been incorporated here, to be known as the Greensburg, Shelbyville & Batesville Traction Co., to build a road between Greensburg and Shelbyville, giving this city interurban connection with Greensburg. The company is capitalized at $10,000. Louis Zoller, Sherman P. Minear and Thomas E. Goodrich are directors.

DETROIT, MICH.—The Detroit & Michigan Air Line R. R. Co. has been incorporated by S. M. Hildreth, Harrison B. McGraw, Harry B. Potter and others for the purpose of building an electric railway between Toledo and Monroe. The capital stock is $1,000.

ST. JOSEPH, MICH.—The Grand Rapids, Kalamazoo & St. Joseph Traction Co. has been granted a franchise through Coloma, Mich. Vice-President Patterson states that it is the intention of extending the line from Holland to St. Joseph.

ALTON, ILL.—A committee representing the village of Bethalto has petitioned J. F. Porter, President of the Alton & East Alton Ry., for the extension of that company's line to that place. The company will build the requested extension as soon as the details can be arranged. At present the rights of way from this place to East Alton are being secured, and work on this line will be started in the spring.

MADISON, WIS.—A new company has been incorporated to run an electric railway from Sheboygan Falls to Plymouth, to be used for passenger and freight traffic. It is known as the Wisconsin Ry. & Electric Ry. Co., and is capitalized at $100,000. G. B. Mattoon, J. Donohue, H. K. Loomis and E. L. Debell are incorporators.

STOUGHTON, WIS.—A franchise has been granted to P. L. Spooner to construct an electric line. The proposed road will run from Madison to Janesville, and will cost about $1,000,000. It will be finished by Jan. 1, 1903.

BELTON, TEX.—The right of way for the Belton & Temple Electric R. R. has been entirely secured and the surveyors will be started to work at once. The construction will be started in January, and the road will be completed by June 15.

OKLAHOMA CITY, OKLA.—The Oklahoma City & Canadian R. R. Co. has been incorporated to build two electric railways, one five miles long in Oklahoma City, and one 27 miles long from Oklahoma City to El Reno. The company will have its offices in this city. Capital stock $200,000. Edward H. Cooke and Guy E. Blackwelder, Oklahoma City; Geo. W. Baunhopf, St. Louis, Mo., and Henry C. Garner, Kansas City, are interested.

SOUTH McALESTER, IND. TER.—The council has granted a franchise to several Chicago men for an electric railway, extending from South McAlester to McAlester, Krebs, Alderson, Carfon and Halleyville, Ind. Ter. The line will be about 40 miles long and will connect South McAlester with all the mining towns in the Choctaw nation. Work will be commenced within six months, and the line completed within 18 months thereafter. The general offices, power house, and machine shop will be located here.

SILVER CITY, N. MEX.—The city council has been granted a franchise to L. P. Deming, Lucius Deming, New Haven, Conn., and M. W. Porterfield, Silver City, permitting the construction of an electric railway connecting the mining camps of Santa Rita, Fierro, Hanover, Central, Pinas Altos and the Burro Mts. with Silver City.

ELECTRIC LIGHT AND POWER.

CHITTENDEN, VT.—Reports state that the Adams Construction Co., which is building a dam for the Chittenden Power Co., will continue on the work all winter. About 6,000 bbls. of Portland cement will be used. It is understood that the power company will soon let contracts for two more dams—one to be at East Pittsford.

PITTSFIELD, MASS.—The Berkshire St. Ry. Co. has asked the legislature for permission to enter the business of selling electric light, heat and power within a radius of 50 miles. Chas. K. Stearns, Ch. Engr., Boston.

SPRINGFIELD, MASS.—The Springfield Gaslight Co. proposes to build a new gas holder of 750,000 cu. ft. capacity.

TAUNTON, MASS.—Abner Coleman, Mgr. electric plant, has reported that a new electric plant should be built to cost as follows: Land and building, $40,000; stack, $3,000; engines, $38,000; boilers, $15,000; foundations, $2,000; condensers, $5,000; piping, $5,000; generators, exciters, switchboard, etc., $31,500; traveling crane, $2,500; street light system, $16,000; new lines and rebuilding old, $15,000; transformers, $1,500.

CAMDEN, N. Y.—This place has voted not to issue $18,000 in bonds for an electric plant.

HOLLEY, N. Y.—The council has sold $15,000 of electric light bonds to the Walden Savings Bank, of Walden, N. Y.

OGDENSBURG, N. Y.—The question of building a municipal electric plant is being considered.

CAMDEN, N. J.—Reports state that W. H. Brown, Ch. Engr., Pennsylvania R. R., Philadelphia, is asking bids for a power house in Camden for the W., J. & S. O. R. R.

ELMER, N. J.—The question of building an electric plant is being considered by private parties.

DOYLESTOWN, PA.—The Doylestown Electric Co. has let a contract to Wm. Steele & Sons, of Philadelphia, for extending the power plant.

IDLEWOOD, PA.—The question of building an electric plant, sewers and streets is being considered.

JERMYN, PA.—Bids are asked by the council until 7.30 p. m. Dec. 20 for lighting this place for five years with electric lights. C. T. Moen, Chn. Com.

BALTIMORE, MD.—The Consolidated Gas Co. has completed plans for two gas holders, to cost about $125,000.

FREDERICK, MD.—The city, it is stated, will soon enlarge the electric plant.

NEWBERN, N. C.—This city has voted to issue $15,000 in bonds for an electric plant.

PARKSVILLE, S. C.—The Twin City Power Co. is reported as arranging to build its proposed power plant at Ring Jaw Shoals, on the Savannah River, to develop 30,000 HP.

BIRMINGHAM, ALA.—The Bessemer Electrical Co. has sold its property, etc., to the Birmingham Ry., Light & Power Co. It is said that the new owners will at once proceed to improve the plants at a cost of about $250,000.

HUNTSVILLE, ALA.—The Huntsville Ry., Light & Power Co. proposes to improve its plant at a cost of $25,000. A. L. Sweeney, Pres.——Reports state that the council is considering the question of municipal plant. J. A. Jones, Chn. Com.

NEW ORLEANS, LA.—The council has directed the city controller to ask for bids for lighting the city by electricity for ten years, on condition that the contractor build the plant which is to be paid for by the city in ten yearly installments. Estimated cost about $800,000.

BILOXI, MISS.—An election will be held Dec. 23 to vote on the question of issuing $40,000 in bonds for an electric plant and water-works.

CHATTANOOGA, TENN.—Reports state that the electric road has been sold to the Rapid Transit Co., as has also the property of the Chattanooga Light & Power Co. J. H. Jeffries, Pres., Philadelphia, Pa.

PULASKI, TENN.—Reports state that B. F. McGrew will build an electric power plant.

LOUISVILLE, KY.—A committee, consisting of Prof. E. H. Mark, Chn., Louisville; Judge J. H. Stotsenburg, Chas. Van Dusen and Thos. H. Armstrong, of New Albany, Ind., and Prof. H. G. Brownell, of Louisville, is considering plans for developing the water power of the Ohio Falls, near this city, to cost $400,000, submitted by C. T. Armstrong, 308 Beeler St., New Albany, Ind.; Harry Dodd, Galena, Ind.; Jas. Callahan, 802 W. Broadway, Louisville; C. W. Schindler, Doerhoefer Block, New Albany; Ed. Spellman, 1215 Rogers St., Louisville; C. A. Lindsay, Cobb, Ky.; Jas. D. Gibbs, 434 W. Main St., Louisville; E. P. Denton, Frankfort, Ky.; M. L. Windell, New Albany; Dr. Hugh W. Graham, Louisville; J.N. Gathright, 123 3d St., Louisville; A. M. Melcher, 731 W. Market St., Louisville; Samuel Tilly, 130 3d St., Louisville. The plan of Dr. Graham and Mr. Gathright are considered the most feasible.

CLEVELAND, O.—Plans are being prepared for a large power station for the proposed new electric roads to be built by the Everett-Moore syndicate. Address A. E. Lang, Pres. Toledo Rys. & Lighting Co., Toledo, O.

BAY CITY, MICH.—The Hecla Portland Cement Co., recently granted a franchise for a gas plant, will, it is stated, soon begin work.

DELRAY, MICH.—A. H. Green has asked for a franchise for an electric plant.

ESCANABA, MICH.—Reports state that the city electric plant will have to be improved at a cost of $15,000.

GRAND RAPIDS, MICH.—A company will soon be organized to build a new light, heat and power plant, to cost about $200,000, work on which will soon be begun. Felix Raniville, Fred Powers and Bert Matthews, Bernard Meyer, Consult. Engr.

IRON MOUNTAIN, MICH.—The question of building an electric plant will probably soon be voted on.

KEYESPORT, ILL.—The village board has decided to light the streets with gasoline.

PEORIA, ILL.—The council has adopted resolutions to build a municipal plant. Address Aldermen Allison and Simmons.

WAUKEGAN, ILL.—The Peoples Electric Light Co. is being organized and will soon ask the council for a franchise to build and operate a plant to cost about $100,000. S. D. Talcott, Fred. Baristow, A. L. Hendee and M. H. Hussey are interested.

LA CROSSE, WIS.—E. C. Swarthout, Pres. Neshono Light & Power Co., writes us that an electric line will be extended from West Salem to Bangor for power and light. About 250 HP. will be installed.

MENASHA, WIS.—The Fox River Gas & Electric Co. has asked for an extension to its franchise, which, if granted, the company agrees to make improvements to the plant.

PRINCETON, WIS.—E. Teske and E. A. Zierke are reported as arranging to build a plant here.

WEST SUPERIOR, WIS.—The Superior Water, Light & Power Co. has asked for an exclusive franchise, when its present one expires in 1903. The company proposes to make improvements.

ST. PAUL, MINN.—Fred. D. Bruce, Geo. H. Shellingberger and Fred. C. Genger, have asked for a franchise for a plant for that portion of the city known as St. Anthony Park.——The council proposes to improve the lighting service of the outlying districts of the city by adding 2,000 incandescent gasoline lamps. The Cleveland Gasoline Co. has submitted a proposition to furnish a plant.

HELENA, MONT.—Ex-Governor S. T. Hauser is reported as perfecting plans for a second dam above the Canyon Ferry plant, on the Missouri River, to furnish power to the mines and smelters of Butte. The plant will develop 20,000 HP., and will cost about $1,000,000.

MISSOULA, MONT.—The contract for building a dam 100 ft. wide across the Missoula River for the Grass Valley French Ditch Co. has been let. E. E. Hughes, Engr.

MARSHALL, MO.—This place has voted to issue $70,000 in bonds for an electric plant and water-works.

MEXICO, MO.—This place will vote Dec. 30 on the question of the municipal ownership of the electric plant. The matter of building a plant in Chillicothee is also being considered.

HOUSTON, TEX.—G. C. Hollister, of Schenectady, N.Y., has purchased the property of the Citizens Electric Light & Power Co.

WALLISVILLE, TEX.—It is stated that the Texas Oil, Land & Investment Co. will build an electric plant. O. H. de Laborton, Pres.

CRIPPLE CREEK, COLO.—The question of a municipal plant is being considered.

SPOKANE, WASH.—The Washington Water Power Co. is reported as making surveys for doubling its former plant to transmit power from this city to the Coeur d'Alene mines. The plant will be completed in about 18

months, and will cost about $500,000. Robt. Hawes, Engr.; Henry M. Richards, Pres.; D. L. Huntington, Secy. and Gen. Mgr.

BURNS, ORE.—This place has voted against the proposition to issue bonds for an electric plant.

BAKERSFIELD, CAL.—The California Power Co. has filed intention to appropriate 25,000 miners' inches of water of Kern River for power purposes.

FRESNO, CAL.—An election will be held Dec. 20 to vote on the question of issuing $285,000 in bonds for an electric plant and $280,000 for water-works. J. B. Johnson, Cy. Clk.

HAYWARDS, CAL.—This place will vote Dec. 23 on the question of issuing $15,000 in bonds for an electric plant. J. A. Obermuller, Town Clk.

OROVILLE, CAL.—Bids are asked until Jan. 10 for the purchase of a franchise for a former line. H. T. Batchelder, County Clk.

RIVERSIDE, CAL.—C. G. Baldwin has submitted a proposition to build a plant to cost about $220,000.——The Riverside Power Co. proposes to extend its plant at a cost of about $250,000.

SAN FRANCISCO, CAL.—Press reports state that Eastern capitalists are interested in the formation of a lighting and power combination, which has been organized in this city with a capital of $50,000,000. One of the earliest undertakings of the concern, the name of which is the California Gas & Electric Co., will be the amalgamation of the local gas companies. If this plan fails the company will construct a plant of its own in San Francisco at a cost of $3,000,000. The towns of Southern California and those as far north as Sacramento will be included in the operations of the corporation. From Bakersfield to San Francisco a pipe line will be constructed immediately, and from this tributary lines will be run to the various towns along the route. Efforts will be made to gain control of all the lighting concerns of the state.

SONORA, CAL.—The Tuolumne Power & Development Co. has issued $250,000 in bonds for building a plant near Jacksonville.

SONORA, CAL.—E. C. Moore, of Santa Clara, Cal., is making surveys for a ditch 26 miles long and a power plant on the main fork of the Stanislaus River for A. B. Thompson and Geo. Batten, of Angels, Cal.

WHITTIER, CAL.—W. E. Butler, Cy. Clk., writes us that the Edison Electric Co. has purchased the lighting and power franchise.

HAILEY, IDAHO.—H. L. Hollister, of Hailey, proposes to build a plant at Shoshone Falls to furnish power to the mining properties at Hailey, about 75 miles distant. It will be necessary to build three dams, two to be 40 ft. wide and one 160 ft., as well as a tunnel 400 ft. long.

IDAHO FALLS, IDAHO.—An election will be held Jan. 3 to vote on the question of issuing $13,500 in bonds for improving the electric plant.

BROCKVILLE, ONT.—An election will be held Feb. 3 to vote on the question of issuing $50,000 in bonds for improving the gas and electric plants.

SOUTHAMPTON, ONT.—C. M. Bowman, M. P. P. for North Bruce, Ont., is reported as interested in a scheme to build a power plant of 1,500 HP. capacity and waterworks near this city.

NELSON, B. C.—City Engineer McCulloch has prepared estimates for a plant.

BRIDGES.

MADISON, ME.—W. B. Getchell, Civil Engr., Augusta, informs us that a freshet has destroyed the bridges at Madison, Winslow, Waterville, Skowhegan, Brownville and Katahdin Iron Works.

NORWICH, CONN.—The selectmen of Lisbon have been authorized in connection with the selectmen of Norwich, to build a bridge over the Shetucket River at Taftville.

PORT JERVIS, N. Y.—The Neversink bridge at this place was carried out by floods on Dec. 10.

CHANGEWATER, N. J.—Reports state that the Lackawanna R. R. is about to build an iron bridge at this place.

ISLAND HEIGHTS, N. J.—It is reported that a new 98½ ft. iron draw is to be put in the Pennsylvania R. R. bridge.

NEW BRUNSWICK, N. J.—H. S. Kerbaugh, Philadelphia, Pa., has been awarded a contract for building a stone arch bridge over the Raritan River, for the Pennsylvania R. R.

PLAINFIELD, N. J.—Arrangements have been made to open Lincoln Boulevard from East Bound Brook to Dunellan. It will be necessary to build a bridge across Ambrose Creek and one at Green Brook.

ABRAMS, PA.—Reports state that the Reading Ry. Co. may soon let a contract for a bridge across the Schuylkill River between this place and Bridgeport.

CHESTER, PA.—The P., W. & B. R. R. Co. expects to construct a bridge over its tracks at Fourth and Pine Sts., when the bridge at Norwood is completed. The bridge will be 95 ft. long, with a 20-ft. driveway and 10 ft. walk.

KANE, PA.—Bids are asked until Dec. 27 for building the approach to the Poplar St. bridge. C. B. Gillis, Pres. Borough Council.

MONTGOMERY, PA.—The viewers appointed to examine into the need of a bridge across the river in this city, have reported in favor of a 940 ft., four-span iron bridge.

PHILADELPHIA, PA.—A bill has been introduced to the council authorizing the expenditure of $25,000 by the commissioners of Fairmount Park for constructing a stone arch bridge over the Wissahickon.——The P. & R. Ry. has decided to replace the present wooden trestle over the ravine near Mainville, with a 450-ft. steel viaduct which will be 100 ft. above the ravine at its highest point.

POTTSTOWN, PA.—The jury appointed to examine the site of the proposed bridge across the Schuylkill River between Frick's Locks and Saratoga will report favorably for the bridge.

STEELTON, PA.—A company has been formed to build a toll bridge across the Susquehanna River between this city and New Cumberland. Jacob H. Foreman, Walter Stuart and H. W. Smith, all of Carlisle, are interested.

SWISSVALE, PA.—Steps are being taken to have an overhead bridge built across the railroad, according to reports.

MORGANTOWN, W. VA.—Walkers Bros. Charlestown, have been awarded a contract for constructing a bridge to connect Morgantown with the suburb of Sunnyside, at $12,000.

WILMINGTON, N. C.—An appropriation of $4,500 for a steel bridge has been approved by the board of audit and finance. The bridge will be 125 ft. long with a 16-ft. driveway and 10-ft. sidewalks. The abutments will be constructed by the Atlantic Coast Line R. R. A. M. Waddell, Mayor.

WILMINGTON, N. C.—Mayor A. M. Waddell writes us that an iron or steel bridge will be erected over the Fifth St. crossing of the A. L. L. R. R.

GREENSBORO, GA.—Bids are asked until Feb. 6 for an iron and steel bridge over the Oconee River having two steel spans of 144 ft. and 80 ft., respectively, on steel cylinder piers, together with about 252 ft. of steel trestle approach; 12 ft. roadway. James L. Crossley, Clk. County Comrs.

FAYETTE, MISS.—The supervisors have ordered bids advertised for constructing bridges.

SCRANTON, MISS.—The $10,000 issue of bonds for building a steel bridge over Fort Bayou have been sold.

BRITTAIN, O.—Will Botzman has been awarded a contract by the Akron & Canton Electric Ry. Co. for building the abutments for a 70-ft. span bridge across the Little Cuyahoga River.

CINCINNATI, O.—Bids are asked until Dec. 30 for superstructure work in connection with St. Clair St. bridge; also for the superstructure for a plate girder bridge over the Miami and Erie Canal at Marshall St., as stated in our advertising columns. Robert Allison, Pres. Bd. Pub. Service. Geo. F. Holmes, Clk.

MARIETTA, O.—The American Bridge Co. has been awarded a contract by the Ohio River Bridge & Ferry Co. for the superstructure for a steel cantilever bridge at about $250,000.

SULLIVAN, IND.—The Vincennes Bridge Co. has been awarded a contract for erecting four iron and steel bridges at $3,375.

PORTAGE, MICH.—The township board has decided to build a bridge over Sturgeon River this winter and bids will be asked at once.

ELGIN, ILL.—The Chicago, Elgin & Aurora Interurban R. R. will build a viaduct over Elgin Ave., according to reports.

FORT DODGE, IA.—The King Bridge Co., Cleveland, O., has been awarded a contract by the Chicago & Great Western R. R. for building a bridge across the Des Moines River at $500,000.

WINONA, MINN.—G. P. Coleman, Cy. Engr., writes us that bids are asked until Dec. 23 for furnishing 100,000 ft. of pine or fir bridge timber.

WICHITA, KAN.—A committee consisting of Councilmen Smith, Davidson and Luling and the city engineer, has been appointed to prepare plans and specifications for a viaduct about 1,000 ft. long on First St., over the railroad tracks.

WICHITA, KAN.—The American Bridge Co. has been awarded a contract for a pile bridge over the Arkansas River in Park township at $2,125.

ST. JOSEPH, MO.—A bill will be introduced in the senate authorizing the Chicago, Rock Island & Pacific R. R. to construct a bridge across the Missouri River which will cost about $1,000,000.

PERRYVILLE, ARK.—The American Bridge Co. has been awarded a contract for erecting a steel bridge over Fourche le Faur River at $9,290.

ARDMORE, IND. TER.—Reports state that the Choctaw, Oklahoma & Gulf R. R. will build a trestle 1,050 ft. long over the Santa Fe crossings. F. A. Molitor, Ch. Engr., Little Rock, Ark.

COLORADO SPRINGS, COLO.—It is reported that repairs are needed to the 16th St. viaduct that will cost about $6,000.

PUEBLO, COLO.—The Pueblo Bridge Co. has been awarded a contract for constructing the Mesa Ave. viaduct at $4,900.

ARLINGTON, WASH.—The county commissioners have decided to build a bridge across the river at this place at a cost of $12,000 if the citizens will contribute $1,000.

SPOKANE, WASH.—The Northern Pacific Ry. Co. will construct a steel arch bridge for the conveyance of its tracks over Washington St. in the spring.

BAKERSFIELD, CAL.—Bids are asked until Dec. 21 by the supervisors for constructing a bridge across Kern River; also a bridge across Beardsley Canal.

SAN DIEGO, CAL.—The question of constructing a bridge across the San Diego River has been discussed by the council and the city engineer was instructed to make estimates of the cost of different styles of bridges.

SAN LUIS OBISPO, CAL.—The following bids have been received for constructing bridges over three creeks, San Francisco Bridge Co., total, $6,882. W. T. Smith, Arroyo Grande, total, $5,980 (awarded contract).

SONORA, CAL.—The following bids have been received for constructing two bridges over Sullivan's Creek: Pacific Construction Co., $7,247; Hyde Construction Co., $6,980; Cotton Bros. Co., $6,850 (awarded contract).

STOCKTON, CAL.—Bids are asked until Jan. 7 by the Supervisors for constructing a bridge across the Mokelumne River, near Lockeford.

VISALIA, CAL.—Bids are asked until Dec. 26 for constructing a bridge over Mill Creek. M. T. Byrnes, Cy. Clk. L. E. McCabe, Cy. Engr.

MONTREAL, QUE.—Articles of incorporation have been applied for by the Montreal & St. Lawrence Bridge Co. to build a bridge across the St. Lawrence River to Langueiul.

BUILDINGS.

MANCHESTER, VT.—Plans for the new $75,000 hotel at this place are under way. James L. Scott is at the head of the syndicate which will build the new hostelry.

BOSTON, MASS.—Plans have been completed by Chas. E. Park, Arch., Studio Bldg., for a 6-story mercantile building on Atlantic Ave., to be of stone and fireproof construction. The cost of the structure will be $150,000.

NEW BEDFORD, MASS.—The committee in charge of the proposed industrial building to be erected by the North End Merchants' Club has started soliciting for the necessary capital for the new structure. The proposed site is at Acushnit Ave. and Coggeshall St.

PITTSFIELD, MASS.—The county commissioners have authorized H. Neill Wilson, Arch., to get his plans for the new court house ready for contractors. The new building will cost $35,000.

SPRINGFIELD, MASS.—Plans have been prepared for a block of houses to be erected by Dr. H. W. Van Allen on the site of the old Swazey homestead, at Maple and Temple Sts. The new building will be 75 × 105 ft. and will cost $75,000. James A. Clough, Arch.

AUBURN, N. Y.—It is stated that a new depot will be erected in this town by the New York Central & Hudson River R. R. in the near future.

BUFFALO, N. Y.—A factory building will be erected by the E. R. Thomas Motor Co. at 1192 Niagara St., at a cost of $45,000. It will be one story, 100 × 120 ft.

NEW YORK, N. Y.—Plans have been filed by I. M. Olsen, 2312 Southern Boulevard, for 7-story brick lofts, 25 × 90 ft., at 17 East 19th St., to cost $45,000. C. Abbott French, Arch., 406 West 42d St; by Church of St. Luke, for a 1-story brick church in 138th St., 72 × 150 ft., to cost $85,000. M. J. Garvin, Arch., 3307 Third Ave., by the city, for a 5-story brick school in 15th St., west of First Ave., to cost $400,000. It will be 210 × 206 ft. C. B. J. Snyder, Arch., 585 Broadway; by Feller & Sheufsky, 174 East 10th St., for a 6-story brick tenement, 19 × 79 ft., in East 17th St., to cost $100,000. Sass & Smallheiser, Archs., 23 Park Row; by Olivia and Caroline P. Stokes, for a 12-story brick hotel, 50 × 175 and 49 × 90 ft., at 38 and 40 East 26th St., to cost $600,000. Howells & Stokes, Archs., 47 Cedar St.; by a corporation, at 68 William St., for a 12-story office building, 50 × 90 ft., at 364-6 Fifth Ave., to cost $325,000. A. D. Shepard, Arch., 170 Fifth Ave.

NEW YORK, N. Y.—W. K. Aston has purchased the O'Sullivan property at Wall and Pearl Sts., 73 × 62 ft., and there will be erected a 12-story office building on the site by the Tontine Co. It will represent a cost of about $800,000.——The Crescent Athletic Club has taken steps to secure plans for the erection of a new club-house at Pierrepont and Clinton Sts.——The "Ten Associates of Boston," a corporation composed of Boston capitalists, has been formed to erect a 12-story apartment house at 2 and 4 West 47th St., to represent a cost of about $500,000.——The vestry of St. Michaels' Episcopal Church, Amsterdam Ave. and 99th St., has decided to begin work on the completion of the parish house, for which $30,000 has been offered.——The Manhasset Bay Yacht Club has adopted the plans for the new club-house at Port Washington, to cost $30,000.

NEW YORK, N. Y.—Bids are asked by the department of parks, Arsenal, Central Park, until Dec. 30 for erecting the center pavilion of the Eastern Parkway front of the Brooklyn Institute of Arts and Sciences; and until Dec. 28 for erecting a comfort house in Prospect Park, Borough of Brooklyn.

NEW YORK, N. Y.—Bids are wanted by the department of public charities, foot of East 26th st, until Dec. 30 for repairing roofs of the Kings county almshouse, Borough of Brooklyn.

SCHENECTADY, N. Y.—The board of education has awarded the contract for the new high school to Carpenter & Williams, Norwich, Conn., at $82,420.

TROY, N. Y.—The state armory commission received the following bids on Dec. 9 for the improvements of the Troy armory, H. P. Feilding, Arch.: For general construction—Prescott-Buckley Construction Co., Schenectady, $65,000; A. Pasquini, Albany, $69,740; P. Keeler, Albany, $64,246; George Spence & Son, Troy, $72,778; Collins Bros., Albany, $64,422; Philip Casey, Troy, $46,740 (for masonry only); Charles P. Boland Co., Troy, $62,871 (accepted); William Behan, Troy, $68,650. For plumbing—R. T. Ford, Rochester, $6,417; John Doyle, Albany, $7,950; Burleson Hardware Co., Niagara Falls, $4,985; J. J. Horan & Co., Troy, $6,739; Kieley & Stahl, Albany, $7,993; Edward Joy, Syracuse, $7,675; Mulligan & Schermerhorn, Troy, $5,313. For steel construction—American Bridge Co., Syracuse, $19,500.

JERSEY CITY, N. J.—Bids are asked until Dec. 26 for the erection of public school No. 2, Erie St. Jas. J. Wiseman, Clk. Bd. Education.

NEWARK, N. J.—Bids are asked until Dec. 18 for the purchase of $300,000 in bonds for the new city hospital. F. T. Johnson, Comptroller.

BRADFORD, PA.—Competitive plans are wanted by the city until Jan. 10 for the construction of a city hall, at a cost of $18,000. E. C. Charlton, Cy. Clk.

MEDIA, PA.—The property of Mrs. S. E. Turner and Mrs. C. F. R. Henckeroth has been offered to the city of Philadelphia for the site for a hospital for smallpox patients.

NAVARRE, PA.—Plans are now being prepared in the office of the chief engineer of the Wheeling & Lake Erie R. R. for new yards and repair shops at this place.

PHILADELPHIA, PA.—Cope & Stewardson, Archs., 320 Walnut St., have started plans for the new $150,000 dormitory for Bryn Mawr College at Bryn Mawr, to be a 4-story stone structure.——Schermerhorn & Reinhold, Archs., 430 Walnut St., are at work on plans for the new Montgomery county court house at Norristown, to cost about $250,000.——Plans for an 8-story business building at 116-18 North Seventh St. have been completed by Caldwell & Simons, Archs.——George C. Boldt, proprietor of the Waldorf-Astoria Hotel, New York, is preparing to build a new hotel on the site of the Hotel Stratford, Broad St., to cost about $3,500,000.——Benjamin Ketcham's Sons have sent out calls for estimates on an 8-story fireproof apartment at 33d and Chestnut Sts. E. P. Brink & Son, Archs., Stephen Girard Bldg.——The Singerly mansion, at Brown and Jefferson Sts., has been sold to H. J. Seibel, representing a syndicate which will build a 7-story apartment house on the site.——Plans have been prepared and filed by W. L. Price, Arch., 731 Walnut St., for a 6-story building, 17 × 180 ft.

ANNAPOLIS, MD.—The navy department has awarded the contract for the construction of the buildings to be used as quarters for the cadets to Noel & Thomas, Baltimore, at $2,448,000. The bids for this work were given in our issue of Dec. 12.

BALTIMORE, MD.—B. N. Baker, Pres. Atlantic Transport Co., has purchased the Mount Vernon Hotel, on West Monument Ave., and proposes to erect a 16-story apartment house upon the premises.——Parker & Thomas, Archs., informs us that they will proceed at once with the work on the plans for the new building for the International Trust Co., to be one story, 53 × 100 ft., and to cost $100,000. The plans will be ready by March 1.——It is planned to build an annex to the city hall, to be three stories, and to cost about $150,000. No legislation to the purpose has yet been taken.

MANCHESTER, VA.—The council has been asked to make an appropriation of $100,000 for a new high school building.

NORFOLK, VA.—It is stated that the Bay Shore Terminal Co. will in the near future build a down-town depot in this city.

NORFOLK, VA.—Arnold Eberhard, Arch., has invited bids for the erection of a public school building at Churchland, Norfolk county.

RICHMOND, VA.—The plans prepared by Hodges Leech, Arch., Baltimore, Md., for the new hotel at Ninth and Grace Sts. for Mrs. Atkinson have been accepted.——A resolution has been passed by which the general assembly is authorized to appropriate a sum of $250,000 for the necessary enlargement of the state prison.

PARKERSBURG, W. VA.—Hannaford & Sons, Cincinnati, O., have been instructed to prepare plans for the new 10-story building at Seventh and Market Sts., to cost $100,000.

ASHEVILLE, N. C.—The contract for the new court house here has been let to W. E. Wood, representing Chas. B. Moses, Chicago, at $45,000.

CHARLESTON, S. C.—Bids are asked until Jan. 6 for building a 4-room fireproof building for county commissioners. John R. Eidson, Supervisor.——The following bids were received by Capt. David Price, Q. M., on Nov.

23 for constructing the barracks and administration building at Sullivan's Island: Henry Monk, Pensacola, Fla., $29,760 (accepted); W. R. Bensall & Co., Hamlet, N. C., $62,840; Randall Bros., Atlanta, Ga., $44,437; Jas. H. Coster, Baltimore, Md., $43,800.

CARTERSVILLE, GA.—The plans for the new depot to be built here by the Nashville, Chattanooga & St. Louis R. R. have been completed.

COVINGTON, GA.—The necessary funds for the construction of the Turner High School for colored are now being raised. M. A. Bates, Principal.

WAYCROSS, GA.—The county commissioners have appointed B. G. McDonald, L. M. Bedell and E. F. Deen to meet on Dec. 19 to decide as to the kind of building to be erected for the new court house at Folkston.

JACKSONVILLE, FLA.—Bids are asked until Jan. 10 for the construction of the Duval county court house. F. J. Hyde, Acting Chn. County Comrs.; Holmes & Lawton, Archs., Bay and Bridge Sts.

BIRMINGHAM, ALA.—The new Woodward office building, for which a permit was recently issued, will be ten stories, 100 × 100 ft., fireproof, of stone and iron construction, and will cost about $200,000. The building will be erected by John Griffith & Son for W. H. Woodward. Stone Bros. & Weston, Archs.——E. J. Smyer and associates will erect a 7-story office building at 21st St. and Third Ave.

ALEXANDRIA, LA.—F. M. Welch, Mayor, writes us that bids for the new high school to be built in this city will be opened early in January. The building will be of brick and stone, 260 × 520 ft., and will cost $35,000. It will be equipped with water system of heating, electric light and elevators.

NEW ORLEANS, LA.—Audry & Bendernagel, Archs., 602 Godchaux Bldg., inform us that no date is set for the opening of bids for the new office building to be erected by the Tulane Educational Fund. The building will be seven stories, fireproof, 47 × 100 ft., and will cost about $125,000.——Plans have been drawn and contracts will soon be let for the erection of a 6-story building on the site of the B. Fellman dry goods store, at 727 Canal St. Thomas Sully, Arch.

KNOXVILLE, TENN.—Work will be commenced shortly on the construction of six store buildings at Gay St. and Jackson Ave. by Pickle, Turner & Maynard. The buildings will be 78 × 135 ft. and will cost about $40,000.

SPRINGFIELD, O.—Plans are being prepared by Wm. Miller, Arch., S. Limestone St., for the new business block in East High St., to be erected early in the spring.

WOOSTER, O.—The main building of the University of Wooster was destroyed by fire on Dec. 11, the loss being estimated at $250,000.

YOUNGSTOWN, O.—J. R. Thomas' Sons will erect a warehouse at Holmes and Commerce Sts., to cost about $50,000.——Herman F. Kling, Arch., Youngstown, informs us that the plans for the hotel to be erected by Thomas Farrelly, Sharpsville, Pa., will be completed in about three weeks. The building will be four stories, 60 × 100 ft., of stone, and will be steam heated and electrically lighted.

DETROIT, MICH.—Permits have been issued to George W. Myers, Arch., Detroit, for 12 2-story frame apartment houses, to cost about $45,000.

MARQUETTE, MICH.—The following bids were received by George Barnes, Secy. School Bd., on Nov. 30 for two schools in this city: Paul Mueller, Milwaukee, Wis., $63,548; General Construction Co., Milwaukee, Wis., $58,548; Lipsit & Sinclair, Marquette, Mich., $62,950; Northern Construction Co., Milwaukee, Wis., $61,947; Waterworth, Fee & Wilson, Duluth, Minn., $56,036 (accepted).

CHICAGO, ILL.—Daniel M. Lord, of the firm of Lord & Thomas, will erect a residence on the property at East End Ave. and 54th St., at a cost of $80,000.——A permit has been issued to the Scully Steel & Iron Co. for a 2-story brick warehouse at 132-34 Fulton St., to cost $40,000, and to the board of education for a 3-story brick school at 222-47 83d St., to cost $115,000.——The warehouse to be built by the McCormick estate at 363-71 Indiana St. will be after the plans by Robert T. Newberry. It will cost $45,000, and will be five stories, 110 × 100 ft., of mill construction.——A. Buckingham Chandler, of the firm of Chandler & Co., is planning the erection of an apartment building at Rush and Erie Sts. The plans for the building are being prepared by Henry Lord Gay, Arch., 92 Dearborn St.

DECATUR, ILL.—Bids are asked until Jan. 30 for the erection of a new public library building. Wm. J. Quinlan, Pres. Library Bd.——Patton & Miller, Archs., 115 Monroe St., Chicago, have been retained as architects for the buildings for the James Millikin University at this place. It is the intention of spending $200,000 on the new buildings.

ROCKFORD, ILL.—The Rockford-Belvidere Electric Ry. Co. is having plans prepared for the new car barns and freight depot on South Wyman St., to be 66 × 250 ft.

MILWAUKEE, WIS.—Bids are asked until Jan. 31 for constructing a public school building at Galena and 14th Sts. G. W. Porth, Deputy Comptroller.——Louis Auer and Richter & Dick have decided to erect six or seven flats this winter on State St., the improvements to cost about $30,000.

SIOUX CITY, IA.—The Massachusetts Real Estate Co. and the Union Terminal Ry. Co. are said to be figuring on the cost of erecting a warehouse building, to be used by both companies. It will be four stories high, covering one block, and will cost $125,000.

OLIVIA, MINN.—Bids are asked until Jan. 14 for erecting a court house for Renville county at this place. J. T. Brooks, County Audr.; Fremont D. Orff, Arch., Lumber Exchange.

ST. PAUL, MINN.—Bids are asked until Jan. 7 for the construction of one cavalry stable, one blacksmith shop and four stable guard houses at Fort Meade, S. Dak. Geo. E. Pond, Ch. Q. M.

TOPEKA, KAN.—C. J. Devlin has decided to erect a 4-story building, 25 × 150 ft., at a cost of $30,000. Work will begin in May.

ABERDEEN, S. DAK.—The plans for the new court house will be prepared by Kinney & Detwiler, Archs., Austin, Minn. The new structure will be 114 ft. high, 84 × 106 ft., and will cost $85,000.

BUTTE, MONT.—Reed & Stern, Archs., St. Paul, Minn., are preparing plans for a new station to be erected by the Northern Pacific R. R. at Butte, at a cost of $100,000.

EUREKA SPRINGS, ARK.—Herbert C. Chivers, Arch., Wainwright Bldg., has drawn plans for the Baptist Church at this place, to cost about $60,000.

LITTLE ROCK, ARK.—The business men have taken a step towards raising a fund of $50,000 for a Y. M. C. A. building.

COLLEGE STATION, TEX.—Competitive plans are wanted by the chairman of the building committee until Jan. 24 for a chemical and veterinary laboratory building at the Agricultural and Mechanical College, to cost about $26,000.

CORSICANA, TEX.—Plans and specifications are invited by Chas. H. Allyn, Chn. Com., for the erection of the new high school building.

HOUSTON, TEX.—Bids are asked until Dec. 21 for erecting the Third Ward school. S. E. Tracy, Secy. School Bd.

LUFKIN, TEX.—The county commissioners have adopted plans for the new court house here. The structure will cost about $50,000.

WAXAHACHIE, TEX.—The board of trustees of the Trinity University have let the contract for the erection of the new university buildings here to D. Mahoney, of this city, at $48,000.

WACO, TEX.—The following bids were received by the building committee on Nov. 30 for the new F. L. Carroll chapel and library at Baylor University: The Stephenson Contract Co., Dallis, Tex., $53,890 (accepted); Tom Lovell, Waco, Tex., $54,763; L. R. Wright, Fort Worth, Tex., $57,000.

BOULDER, COLO.—Plans and specifications for the library building for the University of Colorado are wanted by the Board of Regents of that institution until Jan. 21. The building is to seat 1,000 people, and to cost about $75,000.

SEATTLE, WASH.—A 7-story brick building will be erected by M. Gottstein and D. M. Hoffman in the spring, to cost about $100,000.

ALAMEDA, CAL.—The election held on Dec. 7 resulted in favor of issuing bonds to the amount of $100,000 for school improvements.

REDDING, CAL.—Bids are asked until Jan. 8 for erecting a brick high school, to cost not more than $35,000. W. O. Blodgett, Clk.

SAN FRANCISCO, CAL.—Herbert E. Lay will erect a $500,000 office building at New Montgomery and Mission Sts., to be of steel, brick and terra cotta, with four elevators.——Plans are being made for the Market St. Ry. Co. for a new car house on 23d and 24th Sts. It will be of brick with galvanized iron roof, costing about $90,000.——Henry T. Meyer, Arch., has prepared plans for a building for Wm. Helbing at Bush St.——Fred. H. Meyer, Arch., has made plans for the 4-story brick warehouse for Sampson Tams and D. L. Randolph, to be 75 × 137 ft., and to cost $60,000.

SAN JOSE, CAL.—The only bid received by the council on Dec. 2 for the new Carnegie Library building was submitted by W. T. Veitch & Bros., of Oakland, at $56,550. This was rejected, being too high.——Architects throughout the state have been asked to compete for the new Odd Fellows' Home, to be erected in this city.

LONDON, ONT.—A proposition has been submitted by Alderman Campbell to the council providing for the erection of a city hall and police station, at a cost of $60,000.

ROSSLAND, B. C.—Bids are asked until Dec. 20 for installing a heating apparatus in the public building at this place. Fred Gelinas, Secy. Dept. Pub. Wks.

WATER-WORKS.

POULTNEY, VT.—The question of securing a new water supply is being considered.

GLOUCESTER, MASS.—Lee, Higginson & Co., of Boston, Mass., have purchased the $730,000 of water bonds, the proceeds to be used to pay the estate of Geo. H. Norton, for the water-works. Address Mayor French and Councilman Frost.

LYNN, MASS.—The water board is considering the question of building an aqueduct from Hawkes Pond to Walden and of locating a new pumping plant to cost $75,000.

MERRIMAC, MASS.—J. W. Duff, of Old Orchard, Me., has submitted a proposition to build works and an electric plant here to cost about $80,000.

PROVIDENCE, R. I.—Bids are asked until Dec. 23 for furnishing about 47,000 lbs of ⅝ to 1-in. lead pipe, 26,000 lbs. of pig lead, 500 lbs. of pig tin, 525 ½ to 1-in. taps, 615 ½ to 1-in. stops and 35 ½ and ⅝-in. plugs. Robt. E. Smith, Comr. Pub. Wks.

JAMESTOWN, N. Y.—Reports state that J. F. Witmer, of Buffalo, N. Y., has been asked to revise the plans for municipal works, recently prepared by him. Estimated cost, $500,000.

NEW YORK, N. Y.—Bids are asked by the department of water supply until Dec. 26 for furnishing and laying water mains in certain streets in Richmond.

NEW YORK, N. Y.—The Aqueduct Commission on Dec. 17 opened the following bids for the material and construction of a new pumping plant in shaft No. 25 of the New Croton Aqueduct, at 179th St. and Amsterdam Ave.: Pneumatic Engineering Co., New York, $65,827; Henry R. Worthington, Brooklyn, $100,000; Kilby Mfg. Co., Cleveland, $125,000; R. G. Packard & Co., $55,000; the Bacon Air Lift Co., New York, $151,500.

UTICA, N. Y.—The council has voted over the mayor's veto to grant a franchise to the Whitestone Water Co. to lay mains in this city.

BRIDGEPORT, N. J.—The question of a water supply for this place is being considered.

GLOUCESTER, N. J.—It is proposed to bore wells for an increased water supply, and also to extend the sewers. Address City Clerk Lane and Councilman O'Hara.

ALIQUIPPA, PA.—The Raccoon Water Co. has been incorporated, with a capital of $1,000, by J. W. Reid, A. J. Krill, G. F. Dixon and W. L. Shrum.

WILKINSBURG, PA.—The council has granted a franchise to the Wilkinsburg Water Co., just chartered, with a capital of $1,000, by Lyman M. Jenkins, of Newark, N. J.; Albert H. Annan, of St. Louis, Mo., and A. G. Shaw, of Pittsburg, Pa.

WEST HOMESTEAD, PA.—The council has passed an ordinance to issue $50,000 in bonds for improving the works, etc.

YARDLEY, PA.—Bids are asked by the Yardley Water & Power Co. until Jan. 14 for constructing works, as stated in our advertising columns. C. A. Clayton, Secy.

BALTIMORE, MD.—The water board has asked for $1,000,000 for erecting two new reservoirs.

FORT WASHINGTON, MD.—We are informed that the following bids were received, Dec. 6, by the Q. M., U. S. A., for constructing works here: Rosser & Castor, Belaire, O., $15,800 for entire work; Lewis Hatton, Fort Washington, Md., $2,462 for pump house only; Shreve & Company, Baltimore, Md., $17,450 for entire work; Crawford Paving Co., Washington, D. C., $3,650 for reservoir in "Ransome," a system of construction, $3,935, brick and cement reservoir; W. H. McCray, Washington, D. C., $2,700, pump house, $4,100, reservoir; H. E. Horton, Chicago, $5,800, tank and trestle, as specified; New Jersey Foundry & Machine Co., 26 Courtlandt st., N. Y., $4,237, machinery, $6,787, tank and trestle.

TAKOMA PARK, MD.—Bids are asked until Dec. 20 for the purchase of $10,000 of 30-year 4% gold bonds, the proceeds to be used for constructing works and a sewerage system. S. S. Shedd, Mayor; Geo. A. Warren, Treas.

HAMPTON, VA.—The Peninsula Pure Water Supply Co. has been incorporated and fully organized, with a capital of $200,000, to build works for this city, Phoebus, Newport News, Old Point Comfort and Fortress Monroe, to cost about $500,000. The water supply is located about four miles distant. Construction will commence at once. Judge Charles Collier, Pres., Philadelphia; A. L. Osgood, Vice-Pres., Camden, N.J.; E. A. Corbin, Treas., Philadelphia; John Birkinbine, Consult. Engr., Odd Fellows' Temple, Philadelphia, Pa.

WASHINGTON, N. C.—Steven S. Shurks has been granted a franchise for works, according to reports.

SULLIVAN ISLAND, S. C.—Bids are asked until Jan. 15 for constructing works and a sewerage system. Address David Price, Q. M., U. S. A.

ATLANTA, GA.—Towell Jackson, of St. Louis, Mo., has submitted a proposition to furnish this city with an increased supply of filtered water.

WAYNESBORO, GA.—Bids are reported as being received by the city clerk for constructing works and an electric plant.

WINDER, GA.—The question of works and electric plant is being considered, according to reports.

BIRMINGHAM, ALA.—The Birmingham Water-Works Co. is reported as arranging for protecting its water supply by moving 40 houses and laying 1,000 ft. of 36-in main, at a cost of $15,000.

TUSKALOOSA, ALA.—A. A. Boardman, Receiver Tuskaloosa Water Co., proposes to build and otherwise improve the works.

COLUMBUS, MISS.—The legislature will soon be asked to permit this city to issue $50,000 in bonds for improving the works, erecting a new city hall, etc. C. S. Lincoln, Mayor; B. A. Weaver, Chn. Com.

FAYETTE, MISS.—We are informed that P. H. Porter, Clinton, Ky., and Columbia Bldg., Louisville, Ky., has been awarded the contract, at $12,250, for constructing works. The Andrews Artesian Well Co., New Orleans, La., received the contract for the well.

HAZLEHURST, MISS.—E. M. Cook, Mayor, writes us that bids will probably be asked in January or February for works and an electric plant, to cost about $35,000. The water will be secured from deep wells. Coleman & Malochee, Engrs., 121 Carondelet St., New Orleans, La.

JOHNSON CITY, TENN.—The Johnson Water Co. has received the contract for furnishing the new Soldiers' Home with water.

SPRINGFIELD, TENN.—An injunction has been secured on the mayor to restrain him from issuing bonds for works and an electric plant to cost $71,000.

COLUMBUS GROVE, O.—Reports state that bids will be received in January for a new pumping plant, to cost about $30,000; Chas. Killen, A. M.; G. L. McKibben, Engr.

MADISONVILLE, O.—Bids are reported as wanted until Dec. 23 for furnishing a boiler, a 250-HP. engine, a 125-K-W. and a 100-K-W. dynamo, etc.; for the improvements to the works, to cost $25,000. There will also be a 200,000-gallon tower. T. C. Finch, Engr.; D. E. Sauer, Clk.

MANSFIELD, O.—An election will be held Jan. 8 to vote on the question of issuing $25,000 in bonds for extending the works, to include an air compressor, boiler, etc. F. M. Remy, Clk.; Jacob Laird, Cy. Engr.

PEMBERVILLE, O.—The council will soon be petitioned to build works to cost $9,000. Address Mayor Rees and Councilman Strong.

SPRINGFIELD, O.—Ulrick & Williams have been awarded the contract, at $58,000, for constructing the supplemental water system.

TOLEDO, O.—The question of a purer water supply is being considered. Address Water Trustee Keller.

KOKOMO, IND.—L. C. Knight, Fort Wayne, Ind., has submitted a second proposition to build works for this place.

CHARLOTTE, MICH.—N. W. Harris & Co., of Chicago, have bought the $30,000 of bonds for extending the works and sewers, construction on which will commence this winter.

CONSTANTINE, MICH.—This place is reported to have voted bonds for works.

GROSSEPOINTE, MICH.—The question of securing a water supply from the Detroit works is being considered by Village President Cadieux.

WOODMERE, MICH.—Construction on the proposed works will proceed at once, the city having disposed of $93,237 of bonds for the same to Farson, Leach & Co., of Chicago.

BLOOMINGTON, ILL.—L. B. Thomas, Mayor, writes us that the matter of extending the works is in the hands of the committee which is investigating the matter. Elmer Folsom, Des. Engr.

COLLINSVILLE, ILL.—Bids are asked until Dec. 28 for furnishing the materials and for extending the works, as stated in our advertising columns. Owen Ford, Consult. Engr., St. Louis, Mo.; Jas. N. Peers, Cy. Clk.; T. J. Thomas, Chn. Water Com.

DANVILLE, ILL.—It is proposed to lay new mains in a number of streets. Address Alderman Kiningham.

McLEAN, ILL.—T. McFarland, Clk., writes us that the question of works has been talked of, but nothing will likely be done very soon. Pop., 600. John Wagner, Mayor.

PEKIN, ILL.—The question of buying the present works or building a new plant is being considered.

ROCKFORD, ILL.—The water committee will ask an increase of $5,000 over last year's appropriation for water mains.

SPRINGFIELD, ILL.—The council proposes to install a filter plant of 4,000,000 gallons capacity, at a cost of about $40,000.

VIRDEN, ILL.—Geo. H. Westlake, Mayor, writes us that Geo. C. Morgan, Royal Insurance Bldg., Chicago, will complete plans for works in about five weeks, and also for 50 arc lights. J. R. Roberts, Clk.

NEW LONDON, WIS.—An election will be held in March to vote on the question of works to cost $45,000. Geo. C. Morgan, Royal Insurance Bldg., Chicago.

CAMBRIDGE, IA.—This place has voted to build works.

BEDFORD, IA.—The Des Moines Bridge & Iron Works is preparing plans for works.

WEST LIBERTY, IA.—The Chicago Bridge & Iron Co. has the contract for a 41,000-gallon steel tank on a 75-ft. steel tower.

EMPORIA, KAN.—The council has voted to build a new dam, to cost about $10,000.

WELLINGTON, KAN.—Geo. H. Hunter, Mayor, writes us that A. M. Patitz, of Milwaukee, Wis., is preparing plans for works.

SOUTH OMAHA, NEB.—It is stated that the Omaha Water Co. wants a 10-year extension to its franchise, which expires in three years.

DEADWOOD, S. DAK.—The council proposes to condemn Elk Creek for an additional water supply; estimated cost about $60,000.

CHEYENNE, WYO.—The North Platte Canal & Colonization Co. has been incorporated with a capital of $100,000 to build about 40 miles of irrigation canals in Laramie county.——W. D. Pease, Cy. Engr., writes us that plans are being prepared for a dam for the proposed Crow Creek water supply.

DILLON, MONT.—Ivan Wilson, of Spokane, Wash., has submitted estimates for works to cost $22,000. An election to vote on the question will be held in January.

WILMOT, MINN.—It is stated that bids will be asked in February for works. M. B. Haynes, Engr., Mankato.

BROOKLYN, MO.—An election will be held Dec. 21 to vote on the question of issuing $5,000 in bonds for works.

KANSAS CITY, MO.—Bids are asked until Dec. 27 for furnishing the materials and for laying a 30-in. water main, about 5,420 ft., as stated in our advertising columns. Harry B. Walker, Secy. Bd. Pub. Wks.

MARSHALL, MO.—This place has voted to issue $70,000 in bonds for works and an electric plant.

FORT SMITH, ARK.—H. H. Shaw and C. W. Fenn, of New York, of the Municipal Water Co., are making arrangements for improving the works. S. J. Rozamond, Supt.

SPRINGDALE, ARK.—A. L. Dabney, of Joplin, Mo., is preparing plans for works.

CROSBY, TEX.—Bids are asked until Jan. 2 for furnishing and erecting a power pumping plant for a rice irrigating plant about seven miles from here. The pump must lift 70,000 gallons of water a minute through a lift of 65 ft. and through two lifts of 32 ft. 68 ins. each, for the Crosby Canal Co. John W. Maxcy, Consult. Engr., 205 Binz Bldg., Houston, Tex.

DALLAS, TEX.—The council has been asked to call another election to vote on the question of issuing $50,000 in bonds for extending the works. Address Mayor Cabell.

EL PASO, TEX.—Engineer La Doux is completing plans for the proposed works for the Mesa Water Co., recently formed by Squire Bros., of Philadelphia, Pa.

FLORESVILLE, TEX.—A. G. Pickett, owner of the works, writes us that it is proposed to extend the irrigation works and furnish water to this city. There will be a standpipe, pumps, pipe, etc.

MARLIN, TEX.—Wm. Shelton, Mayor, writes us that the contract for works has been let to A. E. Wright, of Gonzales, Tex. Pop., 3,000.

HENNESSEY, OKLA.TER.—This place has voted on the question of issuing $10,000 in bonds for works.

PERRY, OKLA. TER.—Wm. Morehead is urging the construction of works and a 20-ton ice plant.

MUSKOGEE, IND. TER.—This place will issue $150,000 in bonds for works, and $25,000 for sewers. B. J. Byrne, Mayor.

FORT MORGAN, COLO.—E. L. Rogers, of Denver, Colo., has completed surveys for a reservoir of 371 acres at the Kiowa Basin. Work on the dam, to contain 700,000 cu. yds. of earth work, will commence at once. John A. Murray, of Orchard, Colo., and Sidney Prince are interested.

SANTA FE, N. MEX.—The Rio Colorado Canal Co. has been incorporated, with a capital of $300,000, by Henry J. Young, of Cerro, Colo., and Ezra Stone, Reading, Colo.

CHENEY, WASH.—Reports state that the Cheney Water Co. proposes to install water meters.

ROCKFORD, WASH.—A. E. Bosthwick, of Spokane, Wash., has submitted a proposition for works.

SPOKANE, WASH.—The question of buying a new pump and otherwise improving the up-river works is being considered by the council.

FRESNO, CAL.—I. Tellman, Cy. Engr., writes us that this place will vote Dec. 19 on the question of issuing $285,000 in bonds for works, and on Dec. 20 for $285,000 for an electric plant. Plans for new sewers to cost $15,000 will soon be completed.

FULLERTON, CAL.—Los Angeles parties propose to build works here to cost $20,000.

LOMPOC, CAL.—This place has voted to issue $40,000 in bonds for works.

RICHMOND, CAL.—The Richmond Light & Water Co. has been incorporated, with a capital of $25,000, by H. Disque, T. M. Ferguson and W. B. Pringle.

RIO VISTA, CAL.—This place is reported to have voted to issue $20,000 in bonds for works.

SACRAMENTO, CAL.—Reports state that the chief engineer of the water-works has completed plans for a 10,000,000-gallon vertical triple expansion pump.

SAN FRANCISCO, CAL.—The Spring Valley Water Co. has let the contract to the Laidlaw-Dunn-Gordon Co., Cincinnati, O., for furnishing three 4,000,000-gallon pumping engines at $60,000. Hermann Schussler, Ch. Engr.

MONCTON, N. B.—Harvey Atkinson, Mayor, writes us that nothing will be done towards securing gravity works, to cost from $50,000 to $75,000, until next summer. It is proposed to put in an additional reservoir of 100,000,000 gallons, about 3½ miles of pipe, etc. John Eddington, Des. Engr., St. John, N. B. It is proposed to lower the conduit leading from Lake Latimer about 5 ft. Address Superintendent Murdoch.

HALIFAX, N. S.—F. W. W. Doane, Cy. Engr., has submitted a report on the proposed improvement to the water supply, and has recommended that changes be made in the meter service.

SUMMERSIDE, P. E. I., CAN.—The question of building works will probably soon be submitted to a vote of the people.

AYLMER, ONT.—Bids are asked for the purchase of $38,000 of 4 per cent. bonds for works. Wm. Warnock, Treas.

BRIDGEBURG, ONT.—This place is reported as having voted for works.

HAMILTON, ONT.—The question of installing water meters is being considered.

OTTAWA, ONT.—The council is considering the question of an additional water supply from above Chandiere Falls.

SYDNEY, C. B., CAN.—C. E. L. Jarvis has recommended the construction of new works.

SEWERAGE.

BOSTON, MASS.—Bids are asked until Dec. 23 for constructing sewers in Wayland and Vinson Sts., Dorchester district. Guy C. Emerson, Acting Supt. of Sts.

REVERE, MASS.—An appropriation of $2,000 has been asked for strengthening the sewer on Winthrop Ave. under the proposed bridge.

NORTHAMPTON, MASS.—The state board of health has decided the city must not empty its sewage into Mill River after Dec. 1, 1903, and has advised the sewer commission to employ an engineer to determine the feasibility of a filtration plant, which will cost from $50,000 to $100,000.

WORCESTER, MASS.—Superintendent Eddy, of the sewer department, is quoted as saying that another sewage purification plant is needed, which will cost about $100,000.

BUFFALO, N. Y.—Bids are asked until Dec. 26 for constructing a 10, 12 and 15-in. tile sewer in Barnard St. R. G. Parsons, Secy. Bd. Pub. Wks.

GLOUCESTER CITY, N. J.—Petitions for sewers in eight streets, at a cost of about $15,000, have been received by the council, and the clerk has been instructed to advertise for bids for the work.

HARRISON, N. J.—An ordinance has been adopted by the council for a pipe sewer in Reynolds Ave. and the town surveyor instructed to prepare plans and specifications for the work. B. P. Walsh, Town Clk.

PITTSBURG, PA.—Bids are asked until Dec. 21 for a sewer drop on Eighth St. A. H. Leslie, Dir. Dept. Pub. Safety.

WILLIAMSPORT, PA.—Geo. D. Snyder, Cy. Engr., writes us that bids will probably be asked in a week or two for constructing 2,000 ft. of 11-ft. brick or concrete sewers, average cut 18 ft., at an estimated cost of $42,000. This is the first section of the sewer, which will be 5,000 ft. in length.

ANDERSON, S. C.—J. L. Ludlow, Winston, N. C., has been engaged to prepare plans and specifications for a sewerage system, which will cost about $40,000.

COLUMBIA, S. C.—The survey of the city has been completed and maps and profiles for the proposed sewerage system are being made, and it is expected that an appropriation for the work will be made in January.

BESSEMER, ALA.—T. T. Huey, Mayor, writes us that a sewerage system will be installed early next year.

AKRON, O.—Bids are asked until Dec. 21 for constructing a sewer in Campbell St. Also until Jan. 4 for constructing sewers in sundry streets. J. V. Mahler, Clk. Cy. Comrs.

LORAIN, O.—Bids are asked until Jan. 3 for constructing 6,950 ft. of 8, 10, 15 and 18-in. pipe sewers, at an estimated cost of $13,850. E. C. Loofbourrow, Cy. Engr.

FORT WAYNE, IND.—Bids are asked until Dec. 19 for constructing a 12-in. pipe sewer in two alleys and a 15-in pipe sewer in one alley; also for constructing sidewalks and improvements in five streets. A. M. Schmidt, Clk. Bd. Pub. Wks.

INDIANAPOLIS, IND.—City Engineer Nelson has estimated the cost of constructing a sewer in Kenwood Ave. at $7,175; in Green St., $1,475, and in the alley north of Sanders St., $8,500.

MARION, IND.—Bids are asked until Jan. 3 for constructing a sewer in 22d St. Cyrus G. Robbins, Cy. Clk.

NEWCASTLE, IND.—M. A. Talbert & Co., Logansport, have been awarded a contract for constructing 7½ miles of sewers at $40,000.

CHARLOTTE, MICH.—The $30,000 issue of sewer bonds has been sold to N. W. Harris & Co., Chicago, Ill.

CHARLOTTE, MICH.—Bids are asked until Jan. 29 for constructing pipe and brick and concrete sewers with appurtenances, as stated in our advertising columns. Russell S. Spencer, Chn. Sewer Com.

JACKSON, MICH.—Superintendent Vandercook, of the board of public works, has been instructed to advertise for bids for constructing three sections of sewers along Grand River, bids to be opened Jan. 13.

CHAMPAIGN, ILL.—Reports state that a petition is about to be circulated for the Boneyard brick sewer, at a cost of about $40,000.

FAIRMONT, MINN.—Mayor E. C. Stowe writes us that nothing will be done towards a sewerage system until next spring.

ABILINE, KAN.—The question of installing a sewerage system, at a cost of about $11,000, is being considered. Address Mayor Halleck.

TOPEKA, KAN.—Bids are asked until Dec. 23 for constructing a 6-in., 2-ring brick sewer in Jackson St. J. H. Squires, Cy. Clk.

ROCK SPRINGS, WYO.—The town clerk writes us that nothing will be done towards installing a sewerage system until after the election in May.

ORANGE, TEX.—N. A. Dawson has been awarded a contract for constructing a sewer in Fourth St.

SHAWNEE, OKLA. TER.—A local corporation has been awarded a contract for completing a sewerage system by April 1.

BAKERSFIELD, CAL.—J. L. Evans, Cy. Engr., has estimated the cost of constructing sewer district No. 3 at $29,044.——A resolution has been adopted for a 6-in. sewer in district A. A. T. Lightner, Cy. Clk.

NAPA, CAL.—The city engineer has been instructed to prepare specifications for a sewer in Second St.

PASADENA, CAL.—Items in a resolution recently passed by the council calls for the construction of an outfall sewer and the furnishing of the necessary pipe in excess of 8 ins. in diameter to connect therewith. The estimated cost is $35,000. The improvement of the sewer farm is also called for at an estimated cost of $5,000. T. D. Allin, Cy. Engr.

PASADENA, CAL.—The city engineer has been instructed to prepare plans for sewers in several streets.

POMONA, CAL.—Ramish & Marsh, Los Angeles, have been awarded a contract for constructing sewers.

SELINA, CAL.—B. W. Barre, Civil Engr., is making a map of the city, and will soon submit estimates on the cost of a sewerage system.

SALT LAKE CITY, UTAH.—Notice is given of the intention to construct sewers in two streets, at a cost of $6,257. J. O. Wystrom, Cy. Recorder.

QUEBEC, QUE.—Bids are asked until Dec. 19 for constructing a brick sewer in St. Sauveur. Jer. Gallagher, W.-W. Engr.

GUELPH, ONT.—J. Hutchson, Cy. Engr., writes us that nothing has been done in regard to proposed sewerage system beyond preliminary surveys and plans. It is very probable that within a few months a by-law to provide money for a trunk sewer and disposal works will be submitted to the ratepayers.

GARBAGE DISPOSAL—STREET CLEANING

TROY, N. Y.—Bids are asked until 11 a. m. Dec. 20 for removing ashes, garbage and refuse and street sweeping, etc., from the 23d district for one year. J. M. Riley, Clk. pro tem.

NEWPORT NEWS, VA.—B. T. Pillow, of Newport News, submitted Dec. 16 at $1,197 the lowest formal bid for erecting a building for enclosing the crematory to be furnished by the Bridgeport Bortes Works Co. In a recent issue we wrongly stated that the bids were asked for building a crematory. W. L. Cooke, Cy. Clk.

CANTON, O.—Local papers state that the contract for a garbage disposal plant has been let to the American Incinerating Co. at $17,000.

HAMILTON, O.—The Dixon Crematory Co., of Toledo, O., is reported to have been awarded the contract at $11,270 for a crematory.

VINCENNES, IND.—Kellensohn & Wirth are arranging to rebuild its burned crematory at once.

MONTREAL, QUE.—The council proposes to build a new incinerator in the eastern part of the city to cost $35,000.

OTTAWA, ONT.—Bids are asked until Jan. 31 by the city engineer for an incinerating plant for the garbage, waste, etc. Alderman Bayly, Chn. Com.

STREETS AND ROADS.

BANGOR, ME.—An ordinance has been passed by the council for repaving Main St. in the spring.

BOSTON, MASS.—Bids are asked until Dec. 24 for macadamizing in Brookline Ave., Roxbury District; also for macadamizing in Torrey St., Dorchester District. Guy C. Emerson, Acting Supt. of Sts.

ELLISBURG, N. Y.—Bids are asked until Dec. 20 for constructing 4,131 ft. of macadam highway. C. I. Holley, Highway Comr.

NEW YORK, N. Y.—Bids are asked until Dec. 28 by the department of parks for furnishing and laying 45,000 sq. ft. of hexagonal asphalt paving tiles on the Bay Ridge Parkway, and for constructing a rustic masonry arch in Highland Park; also for furnishing and laying curbing, asphalt walks, drain pipe, water pipe, basins, etc., in Washington Square, Richmond.

RAMAPO, N. Y.—An appropriation of $3,500 has been made for building roads.

ATLANTIC CITY, N. J.—Bids are asked until Jan. 8 for constructing about eight miles of gravel road, as stated in our advertising columns. John J. Irving, Dir. Elwood; John J. Albertson, Engr., Magnolia.

HARRISON, N. J.—Ordinances have been adopted for brick or block paving in Davis St. and Searing Ave., and for asphalt paving in Central Ave. B. P. Walsh, Town Clk.

NEWARK, N. J.—A proposition is before the board of works to open up Chestnut St. toward Newark Bay.

PATERSON, N. J.—Bids are asked until Dec. 30 for grading and macadamizing three roads in Passaic county. Edward N. Kevitt, Dir. Freeholders; Geo. W. Bothyl, Clk.

BRADDOCK, PA.—Bids are asked until Jan. 6 for the purchase of $101,000 in funding and improvement bonds. John Brennan, Burgess.

PITTSBURG, PA.—Bids are asked until Dec. 27 for improving Lincoln Ave. extension and Wildwood Branch Road. Bond, $50,000. W. E. Thompson, County Controller; F. W. Patterson, County Road Engr.——An ordinance has been adopted authorizing the board of public works to contract for macadam roadways in Schenley Park, at a cost not to exceed $12,000.

PITTSBURG, PA.—Bids are asked until Dec. 21 for curbing and paving in 8th St. A. H. Leslie, Dir. Dept. Pub. Safety.

READING, PA.—Alex. Murdoch, Cy. Engr., writes us that Jacob Mayer has been awarded a contract for constructing 6,500 sq. yds. of shale block pavement, at $11,000.——An ordinance is before the council for a bond issue of $100,000 for paving and sewers for next year.

WASHINGTON, D. C.—Bids are asked until Dec. 28 by the district commissioners for about 20,000 cu. yds. of grading in Connecticut and California Aves., as stated in our advertising columns.

LOUISVILLE, KY.—L. R. Figg has been awarded a contract for paving in two streets, and Fitch, Cottrell & Co. for paving in two streets.

AKRON, O.—Bids are asked until Jan. 4 for grading, curbing and paving with brick in Grant St. J. V. Mahar, Clk. Cy. Comrs.

CLEVELAND, O.—William J. Carter, Cy. Engr., writes us that bids are asked until Jan. 8 for paving with brick in ten streets.

MARION, O.—Ed. S. Ault, Cy. Engr., writes us that bids are asked until Jan. 16 for the purchase of $37,000 in street improvement bonds. S. E. Barlow, Member Finance Com.

WELLSVILLE, O.—Plans have been prepared by City Engineer Leith for paving the extension of Clark Ave. It is estimated that 2,800 ft. of paving in Maple Alley will cost $4,400.

ALEXANDRIA, IND.—Bids are asked until Jan. 18 for constructing cement sidewalks and paving in certain streets. J. S. Humphrey, Cy. Engr.

MONTICELLO, IND.—Bids are asked until Jan. 7 for constructing about 12½ miles of macadam roads in Monon Township, at an estimated cost of $29,767. Jasper L. Ackerman, County Audr.; D. O. Rader, Wolcott, Chn. Bd. Comrs.

PETERSBURG, IND.—Frank Jeans, Worthington, has been awarded a contract for constructing 20 miles of county gravel roads, at $63,800.

SULLIVAN, IND.—Alkire & Martin and Dodds & Miller have been awarded a contract for constructing 15 miles of macadam roads in Turman Township, at $28,000.

WABASH, IND.—Bids are asked until Jan. 27 for 22,000 sq. yds. of asphalt paving in Main and Wabash Sts. John Hilty, Cy. Engr.

BAY CITY, MICH.—The board of public works is considering the question of paving Jefferson St. in the spring.

DETROIT, MICH.—Bids are asked until Dec. 23 for furnishing all No. 1 cedar paving blocks required during the year ending Jan. 31, 1903. D. W. H. Moreland, Comr. Pub. Wks.

CANTON, ILL.—Heckard & Sons have been awarded a contract for paving in North Third Ave., at $9,530.

CHAMPAIGN, ILL.—A petition is being circulated asking for about 1½ miles of paving in Springfield Ave., at a cost of about $33,000.

TOPEKA, KAN.—A resolution has been adopted by the council for brick paving in Quincy St.——A petition has been presented to the council asking for brick paving in Polk St. J. H. Squires, Cy. Clk.

KANSAS CITY, MO.—The park board has decided to extend Linwood Boulevard, at a cost of about $25,000.

BEAUMONT, TEX.—The Parker-Washington Co., San Antonio, has been awarded a contract for brick paving, at about $40,000.

OROVILLE, CAL.—Bids are asked until Dec. 21 for constructing a road in district No. 18. H. T. Batchelder, County Clk.

PASADENA, CAL.—It has been voted to issue $17,500 in bonds for street improvements and street machinery.

PETALUMA, CAL.—The city engineed has been instructed to estimate the cost of grading, curbing and macadamizing in Main St.

SAN BERNARDINO, CAL.—The Alcatraz Asphalt Paving Co. has been awarded a contract for repaving in Third St., at about $2,000.

MANUFACTURING PLANTS.

BURLINGTON, VT.—Fred. J. White, Mgr., Lumbiere North American Co., Ltd., Y. M. C. A. Bldg., informs us that the company has acquired some 35 acres of land on the property known as Howard Park, and work on the plans for the proposed new plant is under way. The buildings will occupy two or three acres of ground space, and the entire machinery will be run by electrical power. The business here will be a branch of the firm of Lumbiere & Co., of Lyons, France, manufacturers of photographic dry plates and paper, which will be the product of the new works. Mr. White desires correspondence and catalogues regarding electrical, refrigerating and paper box machinery.

CHICOPEE, MASS.—The Lamb Knitting Machine Co. is having plans prepared for the erection of a new building as an addition to its present quarters. The building will be three stories, 120 × 40 ft., of brick construction, and will be erected early in the spring.

READVILLE, MASS.—The New York, New Haven & Hartford R. R. has completed plans for assembling the construction departments of the line at this place. The new shops to be constructed will cover 20 acres.

NEW HAVEN, CONN.—Plans have been prepared for a large extension of the plant of the National Wire Corporation in Fair Haven, now being constructed. It is expected that the completed work will employ about 1,000 men.

CATASAUQUA, PA.—The Union Foundry & Machine Co. has awarded the contract for the erection of a 2-story brick pattern storage house, 50 × 100 ft., to Wm. Longbridge. It will be fireproof.

McKEESPORT, PA.—A charter for the Westinghouse Foundry Co. will be applied for on Dec. 26. The purpose of the organization is to erect a foundry at Trafford Park on a tract of land comprising 650 acres. George Westinghouse, George C. Smith and W. D. Uptegraff will be incorporators.

PHILADELPHIA, PA.—Plans have been filed by the Harrison Safety Boiler Works, 17th St. and Allegheny Ave., for an addition, 84 × 41 ft. and 37 ft. high, to its shop.——C. E. Rahn, Arch., 410 Walnut St., has prepared plans for a new factory building on Washington Ave. for a local manufacturing firm, to be four stories, 40 × 60 ft., of stone and steel construction.——The plans for the stable for George Esslinger & Sons, brewers, at 10th and Willow Sts., have been finished and bids are reported wanted. The building will be two stories, 32 × 60 ft., of stone. Emil Hartman, Arch., 441 Chestnut St.——W. J. Shaw, Arch., Smith Block, has prepared plans for a new 4-story building to be erected in Pittsburg in the spring by parties interested in the Pittsburg Homeopathic Pharmacy. The building will be erected on Forbes St.——The Consolidated Ice Co. has purchased ground on 21st St. and will erect an ice plant on the site, at a cost of $150,000.

TARENTON, PA.—The James H. Baker Mfg. Co. has decided to increase its capital stock from $100,000 to $500,000, the additional capital to be utilized in making extensions to the present works. Plans have been prepared for two new buildings, one 80 × 300 and one 60 × 200 ft. About 300 additional men will be employed.

WILMINGTON, DEL.—The Pennsylvania R. R. Co. has been contemplating making extensive improvements to its property here, which will represent a cost of $5,000,000. A. S. Webster, Pres. Street and Sewer Dept., of this city, has stated that the permission necessary to carry out the work would be granted. The improvements consist of elevating the tracks through Wilmington, of erecting new freight and repair shops at Todd's Cut, on the city line, to cost $1,500,000; freight yards and a transfer terminal at Edge Moor, to cost $2,000,000; a new passenger and new freight stations. The plans for the shops are now being prepared. W. H. Brown, Ch. Engr., Philadelphia.

GADSDEN, GA.—The Gadsden Pipe & Foundry Co. has recently been incorporated, with a capital stock of $50,000, to build a pipe foundry here.

TARBORO, N. C.—The entire plant of the River View Knitting Mills, at this place, was destroyed by fire last week, causing a loss of $50,000.

MOBILE, ALA.—The Alabama Iron Works has received the plans and specifications for the machine and blacksmith shops at their plant. The machine shop will be 100 × 62 ft. and the blacksmith shop 40 × 60 ft.

VICKSBURG, MISS.—The Ellisville Ice & Cold Storage Co., capitalized at $10,000, has been incorporated. W. Craft and John Cook, Ellisville, Miss., are interested.

SWEETWATER, TENN.—The stockholders of the Sweetwater Woolen Mill have determined to build a $75,000 cotton factory and to begin work the first of the year.

CINCINNATI, O.—Local papers state that the Globe-Wernicke Co. has decided upon an addition to its Norwood factory. Work on the new addition will be started at once. It will be of irregular shape, about 225 ft. long and 75 ft., three and five stories high. About $700,000 will be expended on the work.

INDIANAPOLIS, IND.—Bids are asked by the board of trustees of the Central Indiana Hospital for the Insane until Dec. 27 for a new ice and refrigerator plant for that institution. Adolf Scherrer, Arch.

HOUGHTON, MICH.—Plans are being prepared for the storage warehouse to be built by the Blatz Brewing Co. here this winter. The building will be 100 × 50 ft.

RHINELANDER, WIS.—The screen door plant of the Wabash Screen Door Co. at Rhinelander was burned on Dec. 8, at a loss of $100,000. It is supposed that the company will rebuild at once.

ST. PAUL, MINN.—The American Grass Twine Co., whose warehouse was recently burned, has decided to rebuild, and is now clearing the site. The new structure is expected to cost $75,000.

FALLS CITY, NEB.—J. A. Crook, Secy. John Gilligan Co., bridge engineers and contractors, Falls City, wishes to communicate with manufacturers of tools and machinery regarding the equipment of a small bridge shop, to be erectted here by that firm.

LEAD, S. DAK.—The Colorado-Dakota Mining & Milling Co. has plans for a 300-ton cyanide plant in the Ragged Top District. It will be located at Ross Springs, and work will be started in the spring. C. E. Giddings, Pres., Deadwood; I. J. McLaughlin, Vice-Pres., Omaha, Neb.

BEEVILLE, TEX.—The Beeville Light & Water Co. propose to erect an ice plant here in connection with their power house.

ST. LOUIS, MO.—It is reported that the Union Lead & Oil Co. will begin work at once on a new white lead plant. It is the intention of the company, which was recently incorporated in New Jersey, with $1,000,000 capital stock, to establish a plant with a capacity of 15,000 tons.

DENVER, COLO.—Local papers state that the Henry Electric Equipment Co. will be incorporated and that within a short time thereafter work will be started on a plant to manufacture electrical devices. C. F. Elliott, Pres.; D. Carl Henry, Secy.

SEATTLE, WASH.—The Seattle Brewing & Malting Co. will erect an addition to its plant, at a cost of $60,000.——A branch office and plant will be established here by Madison, Bruce & Sellers, at a cost of $100,000.

PORTLAND, ORE.—A condensed milk factory, with a capacity of 20,000 lbs. of milk, will be established in this city at once, according to reports. The company is backed by local capital. The articles of incorporation provide that the plant must be in operation by April 1, 1902.

OAKLAND, CAL.—Thos. P. H. Whitelaw, of the Oakland Steel Works, state that it is the intention to erect a mill in East Oakland, which will cost about $100,000.

GALT, ONT.—The board of trade has endorsed the prospectus of the beet sugar factory to be erected by a company to be known as the North American Beet Sugar Co., Ltd.

STOCKTON, ONT.—Reports state that a winery will be built at Woodbridge by New York capitalists on the ranch of J. C. Thompson, at a cost of $30,000.

TORONTO, ONT.—Bids will be received until Jan. 31 for leasing a portion of the new St. Lawrence Market, in this city, for the priqilege of installing and operating therein a cold storage plant. Wm. Burns, Chn. Com. on Property.

MISCELLANEOUS CONTRACTS.

COAL DOCK.—West Superior, Wis.—Jones & Adams, will shortly build a coal dock on St. Louis Bay, at a cost of $125,000.

DAM.—Herkimer, N. Y.—Strobel & Moynehan have been awarded a contract to build a concrete dam across Beaver River at $75,045.

LEVEE.—Point-a-la-Hache, La.—A petition has been signed asking for a back levee 35 miles in length, at a cost of about $100,000.

WHARF.—Caraquette, N. B.—Bids are asked until Dec. 20 for constructing the Caraquette wharf. Fred. Gelinas, Secy. Dept. Pub. Wks., Ottawa, Ont.

TELEPHONE LINE.—Cohocton, N. Y.—A telephone line from this place to Atlanta and North Cohocton is being considered. S. B. Stanton is interested.

LIGHT-HOUSE REPAIRS.—Mobile, Ala.—Bids are asked until Dec. 26 for making repairs at Bayou St. John light station. Lieut.-Col. A. N. Damrell, U. S. Engr.

RESERVOIR, ETC.—Milwaukee, Wis.—Alderman Duester has proposed a plan to build a reservoir to be connected by tunnel with the river in order to flush the same.

MAP AND SURVEY.—Belton, Tex.—Bids are asked until Jan. 14 for making a block book of headright surveys, and a map of Bell county. G. M. Felts, County Judge.

DREDGING.—Savannah, Ga.—Bids are asked until Jan. 16 for dredging in Savannah Harbor, as stated in our advertising columns. Capt. Cassius E. Gillette, U. S. Engr.

TELEPHONE SYSTEM.—Chicago, Ill.—Press reports state that the Chicago Telephone Co. will increase its capital stock $3,000,000 for extensions and improvements.

TIMBER AND STONE.—Montreal, Que.—Bids are asked by the harbor commissioners for timber and plants, Banc Rouge stone and broken limestone. John Kennedy, Ch. Engr.

FIRE ENGINES.—Sydney, N. S.—The authorities have been instructed to purchase a chemical engine, another fire engine, with equipment, etc., and an increased water supply.

BREAKWATER.—Galveston, Tex.—Engineers are perfecting plans for a breakwater and raising the grade of the city 10 ft. above low tide. The city can issue $1,500,000 in bonds.

WHARF.—St. Nicholas, Que.—Dussault & Lemieux, Quebec, have been awarded a contract for building a wharf at $15,000.

CABLE.—Washington, D. C.—Bids are asked until Jan. 6 for furnishing 150 miles of deep-sea cable. Amount may be increased to 250 miles. A. W. Greely, Ch. Signal Officer, War Dept.

CRANE FOUNDATIONS.—Bremerton, Wash.—The Puget Sound Bridge & Dredging Co. has been awarded a contract for building foundations for the 5 and 15-ton cranes to be built here.

STRAIGHTENING CREEK.—Sullivan, Ind.—The commissioners of Sullivan and Knox counties have decided to straighten Busseron Creek, 60 miles in length, at a cost of about $80,000.

HEATING PLANT.—Elwood, Ind.—W. A. De Hority writes us that he would like to secure plans, etc., for a steam-heating and hot-water plant for which he has been granted a franchise.

DOCK.—Seattle, Wash.——The Pacific Packing & Navigation Co. has decided to construct a new dock and enlarge its present wharf at a cost of about $200,000. T. B. McGovern, Vice-Pres.

PIER.—San Francisco, Cal.—Chief Engineer Norton has been directed by the harbor commission to prepare specifications for a pier to replace the present Broadway wharf at a cost of about $75,000.

WHARF FRANCHISE.—Martinez, Cal.—Bids are asked until Jan. 6 for a franchise to construct a wharf on the southern shore of the Straits of Carquinez. J. D. Wightman, Chn. Bd. Supervisors. J. E. Rodgers, County Clk.

HEATING PLANT.—Lincoln, Neb.—City Engineer Campen has been instructed to furnish an estimate of the cost of installing a plant to furnish heat to residences within two blocks of the Rice pumping station from the exhaust steam.

PUMPS, ETC.—New York, N. Y.—Bids are asked until Dec. 23 for furnishing two Clapp & Jones pumps for the fireboat "Zophar Mills;" also for one 75-ft. Dederick aerial hook and ladder truck, and one of 85 ft. John J. Scannell, Fire Comr., 157 E. 67th St.

EXCAVATING.—St. Louis, Mo.—Bids are asked until Dec. 23 for excavating a new channel way for the Des Peres River and boxing in the same, as stated in our advertising columns. Isaac S. Taylor, Dir. of Wks., Louisiana Purchase Exposition Co.

LEVEE.—Houston, Tex.—Bids are asked until Jan. 2 for constructing about 250,000 cu. yds. of canal levees about seven miles north of Crosby; also for the construction of pile foundations, bulkhead, flumes, bridges, concrete and brick masonry for one or more power houses at the same place. John W. Maxcy, Consulting Engr., Crosby Canal Co., 204 Binz Bldg.

CANAL.—Toronto, Ont.—T. I. Taite, Minister of Public Works, states that an amount will be in the estimates next session for the government to undertake to build a canal from Georgian Bay to Toronto.

IRON, CEMENT, ETC.—Montreal, Que.—Bids are asked for cast and wrought-iron, hardware, tools, oils, cement, coal, etc., for the Quebec canals for 1902. Ernest Marceau, Superintending Engr., 1709 Notre Dame St.

BUILDING MATERIALS.—Chemawa, Ore.—Bids are asked until Dec. 21 for furnishing at the Indian School about 112,000 ft. assorted lumber, 20 doors, 26 windows, 44,500 shingles, 100 barrels Portland cement, 100 loads gravel, brick, lime, etc. Thos. W. Potter, Supt.

SHIP CANAL.—Ottawa, Ont.—Application will be made to parliament next session for an act to incorporate the St. Joseph & Lake Huron Ship Canal Co., to construct and operate a navigable waterway from some point on the eastern shore of Lake Huron to some point on Lake Erie.

U. S. POSSESSIONS AND CUBA

BRIDGE.—Hilo, H. I.—Superintendent Boyd, of the Public Works, Honolulu, proposes to build at once a new steel bridge over the Waiakea River, to cost $10,000.

SHOPS, ETC.—Petersburg, Alaska.—Reports state that the Pacific Packing & Navigation Co. is building a marine railway, machine shop, a box factory, etc., at St. Petersburg.

ROAD, ETC.—Hawaii.—The department of public works, Honolulu, H. I., has asked for bids for building five miles of the Alexander Road.——The Matson Line proposes to build a jetty in the Waiakea River at Hilo.

IRRIGATING PLANT.—Porto Rico.—Reports state that the South Porto Rico Sugar Co., 44 Wall St., New York, is letting contracts for its proposed irrigating and sugar plants in Southern Porto Rico, to cost about $100,000.

SEWERS, PAVING, ETC.—Cienfuegos, Cuba.—Reports state that the municipal council has rejected the bids recently received for constructing a sewerage system, paving and building an aqueduct, at a cost of about $2,700,000.

PUBLIC WORKS.—Ponce, P. R.—Bids are asked until Dec. 30 for the purchase of $200,000 of 6% bonds, the proceeds to be used for a public building, improving the aqueduct, building telephone plant for the police service, paving, chemical laboratory, etc. E. Chevalier, Mayor.

WATER-WORKS.—Hawaii.—It is proposed to build water-works at Hilo, H. I., to cost $16,000. A report states that the interior department, Washington, D. C., is making surveys for a water supply for the interior places on the island of Hawaii. J. H. Boyd, Supt. Dept. Pub. Wks., Honolulu.

COALING MACHINERY.—San Juan, P. R.—Bids are asked until Jan. 18 for two coaling piers, with necessary machinery, cable railway, etc., at the San Juan naval station, to cost $20,000. Postponed from Dec. 28. M. T. Endicott, Ch. Bureau Yards and Docks, Navy Dept., Washington, D. C.

FOREIGN CONTRACTS AND EXPORT NEWS.

WATER-WORKS.—Messina, Turkey.—It is reported that the Governor of Messina will soon let contracts for water-works.

HOSPITAL BUILDING.—Bristol, Eng.—Bids will soon be asked by the guardians for an infirmary building, to cost about $600,000. H. Percy Adams, Arch.

ELECTRIC LIGHT PLANT.—Suez, Egypt.—Bids are asked by the minister of public works, Cairo, Egypt, until Jan. 15 for furnishing the materials and for constructing an electric plant for Suez and Damanhour.

ELECTRIC RAILWAY.—Spain.—Bids are asked by the office of public works, Madrid, Spain, until Jan. 26 for a 60-year concession for building and operating an electric road from San Sebastian to Tolosa.

WATER MAINS.—Manchester, Eng.—Bids are asked until Jan. 7 for 14 miles of 44-in. and 10 miles of 40-in. water mains for the Thirlmere Aqueduct. G. H. Hill & Sons, Engrs., 3 Victoria St., Westminster, London.

FACTORIES, ETC.—Siberia, Russia.—Reports state that a number of experts representing American firms have arrived at Vladivostok, bound for Siberia, where they will build factories and exploit the agricultural and mineral wealth of the country.

TRAMWAY.—Durango, Mex.—Maximiliano Damm, a mine-owner of Durango, has obtained a concession from the State of Durango for a tramway from the Promontorio mining district to Chinacates, on the Mexican International R. R. The proposed road will be standard gage and 5 to 30 kilometers in length.

RAILS.—Japan.—Reports state that the contract for about 2,000 tons of steel rails for the Nippon Ry. Co., Tokio, Japan, has been let to Chas. Cammell & Co., of Sheffield, Eng. Other steel and iron contracts have been placed in England. C. A. W. Pownall, Consult. Engr., 53 Victoria St., London, S. W., Eng.

WATER-WORKS—Parral, Mex.—Pittsburg papers state that a company has been organized by T. T. Lane, of Parral, and E. O. Lindblom, of San Francisco, Cal., to build water-works in Parral to cost about $175,000. The company will receive a 25-year franchise, and it is understood will buy the material in Pittsburg, Pa.

SEWERS AND WATERWORKS.—Monterey, Mex.—Surveys for sewerage and water systems, to cost $2,000,000, in Monterey, are being made under the direction of the State of Nuevo Leon. These improvements will be made by the State Government, under an arrangement entered into between the State and municipal authorities. The survey was completed about December 15, and bids for the work will be asked.

RAILWAY WORK—Mexico.—E. N. Brown, Gen. Mgr. Mexican National R. R., Mexico City, stated that the work of widening the gage of that system will commence as soon as the contracts can be let. That part of the road between Monterey and Laredo, Tex., 150 miles, will be converted into standard gage by June 1. The contract for furnishing the road with 6,000,000 ties has just been let to the Industrial Lumber Co., Beaumont, Tex.

BREWERIES.—South Africa.—Reports state that H. Steinmann, Archs., 66 New St., New York, is letting contracts for erecting and equipping two breweries in South Africa, to cost about $700,000. One brewery, to cost about $500,000, will be built by the South African Breweries, Ltd., of London, Eng., and Capetown, C. C., and the other is for Bain & Co., of Johannesburg, Orange River Colony, and will cost $175,000.

MAINS, BUILDINGS, MACHINERY, ETC.—England.—Bids are asked until Dec. 28 for furnishing a power plant, rolling stock, buildings, etc., for the Reading, Eng., electric road, John Bowen, Engr., Reading; until Jan. 6 for pumping machinery, etc., for the Rockford water supply, Jas. Mansergh, Engr., 5 Victoria St., Westminster, London; until Jan. 7 for 12½ miles of gravitation water mains

for the Tynemouth water supply, Jas. Mansergh, Engr., and until Jan. 15 for the pipe work, mechanical coal handling plant, etc., for the proposed Hornsey electric works, Robt. Hammond, Consult. Engr., 640 Victoria St., Westminster, London.

STEEL PLANTS, ETC.—England.—Philadelphia papers state that Frank C. Roberts, 1508 Real Estate Trust Bldg., Philadelphia, Pa., has returned from England after having preliminary prepared plans and reported upon proposed improvements to the steel and iron plants of Guest, Keen & Co., Ltd., Bolckow, Vaughan & Co., Ltd., and the Consett Iron Co. At first it is planned to spend about $5,000,000, but later an additional sum will be spent. The materials will come mainly from the U. S. The principal work to be done is the construction of blast furnaces for pig iron, four of which are to be erected for the Consett Iron Co. Two large plants are to be built for Bolckow, Vaughan & Co., and four furnaces are to be reconstructed for Guest, Keen & Co. Mr. Roberts will make frequent trips to England to supervise the work, and will open an office in London. The chief points in which the British plans are inferior to the American are in labor-saving machinery and operating methods. The work on the plants will be begun early in the spring.

ELECTRICAL APPARATUS. — London, Eng.—It is stated that Chas. T. Yerkes, of Chicago, New York and London, has awarded the electrical contract for the London underground railways to the British Westinghouse Electric & Mfg. Co., whose new works at Manchester, Eng., will be in operation within a few weeks. The electrical generators will be of 6,660 HP. each, and will be driven by turbine engines. Mr. Yerkes' electric generating station in London will have a minimum capacity of 70,000 HP. and a maximum of 100,000. The work will begin immediately, and within two years from Jan. 1 it is expected that the steam tunnels of London will be whitened and ventilated and served by an up-to-date system of electric trains. For the underground as well as the elevated railways of London, New York and Paris the electric machinery has been designed and will be produced by the Westinghouse company.——A press report states that the London & Northwestern Ry. Co. is considering the question of equipping its entire system with electricity.

CONTRACT PRICES.

SEWERS.—New York N. Y.—The following bids were received Dec. 11 for a sewer in West Farms road:

Bids Received at New York, N. Y., Dec. 11, 1901, for Constructing a Sewer in West Farms Road.

Bidder.	Pipe sewer 15-in., 672 lin. ft.	Pipe sewer 12-in., 1,486 lin. ft.	Spurs, 340 each.	Man-holes, 24 each.	Basins, each.	Rock excav., 4,800 yds.	Rub-ble, 25 yds.	Lum-ber, 5 M. ft.	Drain, 50 lin. ft.	Total.
W. J. Ford, 17 West 103d St.	$8.00	$8.00	.....	$50.00	$150.00	.....	$3.00	.....	$1.00	$18,639
J. S. Rogers, 980 Tinton Ave.	3.00	2.50	$0.50	60.00	150.00	$3.00	.05	$0.05	.05	21,776
F. Thielmann, Jr., 147 E. 125th St.	3.50	2.75	.50	50.00	150.00	3.00	.01	.01	.01	22,260
Leeson & Brown, 215 W. 125th St.	11.20	7.10	.50	50.00	150.00	.01	.01	.01	1.00	19,596
J. J. McQuade, 1289 Lexington Ave.	10.00	9.00	1.00	60.00	200.00	.....	.....	.....	.....	21,954
F. V. Smith Contracting Co., 147 E. 125th St.	8.50	9.00	.50	50.00	150.00	.....	.....	.....	.....	20,506

BRIDGE.—Sherbrooke, Que.—We are informed that the following bids were received Sept. 3, 1901, and Nov. 12, 1901, for constructing a highway bridge 295 ft. long, with 32-ft. roadway and two 5-ft. sidewalks; John W. Burke, Engr., 45 Broadway, New York, writes us that the street crosses the river at a deep gorge, the sides of which are rock affording foundation for the cantilever and arch designs with very little masonry. The truss design will require masonry costing about $3,000 more than that for the other designs. The main span is 200 ft. The other 95 ft. consists of short girders. Mr. Burke adopted the two-hinged arch design, and is putting it on a grade of 2.2% to diminish a very steep grade approaching the bridge at one end. Contract price, $17,000. Basic open-hearth riveted steel. Bids for steel superstructure Wolfe St. Bridge (closed Sept. 3, 1901):

Bridge.	Dominion Bridge Co., Ltd. Total, lbs.	Dominion Bridge Co., Ltd. A lb., cts.	*Hamilton Bridge Works Co. Total, lbs.	*Hamilton Bridge Works Co. A lb., cts.
To receive wooden floor:				
Cantilever—Weight	435,000	4.49	425,000	4.75
Truss—Weight	344,000	4.10	352,000	4.25
To receive concrete floor:				
Cantilever—Lump bid		$22,704		$25,220
Weight	516,000		531,000	
Truss—Lump bid		$16,280		$17,640
Weight	407,000		420,000	
Over or under weight		3.50		3.72

*Informal; not accompanied by check nor drawing.

Bids Received at Sherbrooke, Que., Nov. 12, 1901, on Revised Plans for Wolfe St. Bridge.

Bidder.	Cantilever Bid.	Cantilever Est. w't. A lb., lbs.	Cantilever A lb., cts.	Design of bridge, Truss Bid.	Truss Est. w't. A lb., lbs.	Truss A lb., cts.	Arch Bid.	Arch Est. w't. A lb., lbs.	Arch A lb., cts.	Bid, over or under weight, per lb., 3% limit.
National Bridge Co.*	.....	.....	...	$14,000	305,300	4.585	$18,800	404,600	4.646	4.5
Dominion Bridge Co.	$18,450	410,000	4.5	13,161	321,000	4.1	†18,450	410,000	4.5	3.5
Canadian Bridge Co.	20,240	440,000	4.6	14,910	350,000	4.26	20,470	445,000	4.6	4.6 & 4.26
Hamilton Bridge Works Co.	21,850	460,000	4.75	14,238	335,000	4.25	21,375	450,000	4.75	4.75
King Bridge Co.‡	.....	.....	...	19,240	362,588	5.306	.....	.....	...	5.0

*Awarded contract on arch design; weight and price slightly reduced from the above. †This arch 190 ft. instead of 200, making entire bridge 10 ft. short; at this rate full length bridge would cost about $19,258; trusses only about 21 ft. c. to c., for 42-ft. floor. ‡Informal, in not following specifications, re. forfeiture, maintaining traffic, and guaranteeing weight.

PAVING.—Newport News, Va.—W. L. Cooke, Cy. Clk., informs us that the following bids were received Dec. 14, 1901, for paving, as advertised in Engineering News; the council has been enjoined from letting the contract; (1) is for surfacing, (2) for straight granite curb, and (3) for circular granite curb: J. A. Goode, Richmond, Va.—Granite block, on sand (1) $2.70, on 6-in. concrete (1) $3.98, (2) 90 cts., (3) $1.50; Washington Asphalt Block & Tile Co., Washington, D. C.—Block asphalt, on sand (1) $2.39, on 4-in. concrete (1) $2.90, (2) 90 cts., (3) $1.40; Southern Paving & Construction Co., Chattanooga, Tenn.—Sheet asphalt, on 6-in. concrete (1) $2.38, (2) 81 cts., (3) $1.10; Adams Bros.-Payne Co., Lynchburg, Va.—Sheet asphalt on 6-in. concrete, (1) $2.64, (2) 79 cts., (3) $1.08, vitrified brick on 6-in. concrete, (1) $2.45, (2) 79 cts., (3) $1.08; U. S. Wood Preserving Co., New York—Wood block on 6-in. concrete (1) $3.80, (2) 98 cts., (3) $1.15; West Richardson, Newport News, Va.—Vitrified brick (wire cut) (1) $2.43, repressed (1) $2.51, (2) 92 cts., (3) $1.10; granite block on sand (1) $2.95, on 6-in. concrete (1) $4.05, (2) 92 cts., (3) $1.60.

WATER METERS.—Cleveland, O.—The Neptune Meter Co., 253 Broadway, New York, has been awarded the contract for furnishing 5,000 ⅝-in. water meters, with the option of 10,000, at $6.75 each, connections included, with cast-iron frost bottom; 800 ¾-in. at $9.45, and 200 1-in. at $13.50 each. The Union Water Meter Co., Worcester, Mass., has the contract at $300 each for four 6-in. rotary piston meters. Edward W. Bemis, Supt. Water-Works.

WATER MAINS.—New York, N. Y.—The following bids were received Dec. 12 for furnishing the materials and for laying water mains, in Manhattan and The Bronx:

Bids Received at New York, N. Y., Dec. 12, 1901, for Furnishing and Laying Water Mains.

Quantities.		J. Cornwall, Jr., 69 E. 127th St.	Kelley & Kelly, 45 E. 42d St.	Cunningham & Kearns, 307 E. 86th St.	F. Thielmann, Jr., 147 E. 125th St.	Norton & Dalton, 215 W. 125th St.	H. Lipps, Jr. & Ellicott Ave., Willmsbridge.	J. S. Rogers, 980 Tinton Ave.	J. P. Grah'm 85th St.-22d Ave., B'klyn.
Cast-iron pipe	400 tons	$23.50	$26.00	$23.50	$25.00	$25.00	$23.60	$24.00	$23.25
Special castings	22 "	50.00	60.00	49.00	55.00	52.00	51.00	52.00	51.00
Rock without blasting	10 cu. yds.	.38	10.00	5.00	2.50	6.00	5.00	.50	1.00
Rock excavation	1,250 " "	.38	2.50	2.50	2.50	.45	.27	.50	3.50
Earth excavation	7,800 " "	.38	.60	.35	.30	.45	.27	.50	.18
Filling	8,700 " "	.38	.40	.15	.20	.45	.27	.50	.07
12-in. pipe, to lay	3,000 lin. ft.	.36	.40	.30	.30	.35	.33	.25	.43
6-in. " "	14,050 " "	.23	.30	.23	.20	.28	.16	.18	.30
12-in. stop cocks	8 each	60.00	70.00	65.00	75.00	55.00	75.00	75.00	80.00
6-in. stop cocks	36 "	30.00	30.00	25.00	32.00	26.25	35.00	30.00	35.00
Hydrants	47 "	70.00	75.00	65.00	67.00	62.50	65.00	70.00	75.00
Asphalt	50 sq. yds.	.01	3.00	4.00	3.50	.01	3.25	3.00	3.50
Asphalt block	15 " "	.01	3.00	4.00	1.00	.01	3.00	3.00	.60
Granite pavement	100 " "	.01	1.50	3.00	1.50	.01	1.00	2.00	.60
Brick pavement	10 " "	.01	1.50	2.00	1.25	.01	.01	1.00	.60
Macadam	1,825 " "	.01	.60	.49	.75	.01	.40	.50	.40
Pavement and flag	800 " "	.01	1.00	.25	.36	.01	.01	.10	.15
Curb	500 lin. ft.	.01	.20	.08	.10	.01	.01	.10	.01
Total			$25,263	$36,043	$28,008	$29,110	$28,531	$24,468	$25,808	$28,855

WELL.—St. Paul, Minn.—J. McCarthy has been awarded the contract at $3.85 a ft. for sinking a 10-in. artesian well at White Bear Lake.

BRICK PAVING.—Wilmington, N. C.—A. M. Waddell, Mayor, writes us that Roger Moore's Sons & Co. have been awarded a contract at $1.74 for two blocks of brick paving. The city is now being sewered by the Philadelphia Sanitary Sewerage Co., who bought out the Wilmington Sewerage Co., at a cost of about $175,000.

BRICK PAVING.—Houston, Tex.—I. Austin Miller, Cy. Engr., writes us that this city recently let contracts for 40,000 yds. of brick paving to the Thurber Brick Co., of Thurber, Tex., as follows: 5-in. concrete foundation, in business section, at $2.05; on 6-in. gravel foundation, in residence portion, $1.60 a sq. yd. In August the city also let contracts for 72,000 yds. of asphalt paving.

INDUSTRIAL NOTES.

THE MALES CO., Aetna Bldg., Cincinnati, has opened a New York office at Room 1208, 256 Broadway.

THE ALLISON MFG. CO., Philadelphia, is shipping 95 freight and passenger cars for Spanish railways.

THE AMERICAN CAR & FOUNDRY CO., St. Louis, has moved its New York office to the Broad Exchange Bldg., corner Broad St. and Exchange Place.

G. M. GEST, Cincinnati, has received through his New York office, 704 Park Row Bldg., the complete contract to construct conduit system for the telephone company in Schenectady, N. Y.

THE FEDERAL FILTRATION SYSTEM, 141 Broadway, New York, has a contract with the Greenwich Water Co. to increase the filter plant at Greenwich, Conn., and also to alter over the former filters put in that plant to the new system.

THE PENNSYLVANIA STEEL CO., Steelton, Pa., has a contract for 2,500 tons of 60-lb. steel rails for the Coahuila-Pacific R. R., Mexico.

E. IMHAUSER & CO., 206 Broadway, New York, received the highest award at the Pan-American Exposition for their Watchman's improved time detector. The Imhauser detector was first invented in 1869 and is now in use in the United States Life Saving Service.

THE HICKS LOCOMOTIVE & CAR WORKS, 225 Dearborn St., Chicago, has orders for two coaches and one passenger locomotive for the Republic & Grand Forks Ry., Grand Forks, B. C.; four coaches for the St. Louis & Memphis Ry., and for two 50-ton freight and one passenger locomotive for the Blackwell, Enid & Southwestern R. R.

THE ROLLER BEARING & EQUIPMENT CO., Keene, N. H., has just received one order for 500 bearings from the Adams Co. and another from the Davis Iron Works for very large bearings, and is running its plant nights to fill its orders. The company has twice during the six months of its existence doubled its plant, and is now looking for more machinery.

THE OHIO BLOW PIPE CO., Seneca and Michigan Sts., Cleveland, announces a new plant for the manufacture and installation of complete dust-collecting systems, consisting of cyclone dust collectors, furnace feeders, galvanized iron piping, hoods, etc., for the collection of dust, shavings and other refuse from mills, factories, foundries, etc. The company is composed of men who have been actively engaged in this business for many years. Edward Coney, Manager.

THE GREEN NOVELTY CO., 60 Canal St., Chicago, has been organized for developing inventions or experimental problems, and will make a specialty of the manufacture of models, automatic tools and machinery, etc., for outside parties. The company has a well equipped machine shop and plant. Pres., John H. Green; Secy. and Treas., C. L. Jenness; Supt., John R. Woligren.

PATTON & GIBSON CO., Pittsburg, have a contract from the Security Investment Co., Pittsburg, for 300,000 cu. yds. of steam shovel work at Stewart Station, Pa.; also one from the Carnegie Steel Co. for the loading by steam shovels of 300,000 yds. of coke out of the large stock pile near Duquesne, Pa. Owing to the congested condition of the railways this is necessary in order to keep the furnaces supplied with coke.

THE THURBER BRICK CO., Thurber, Tex., has the contract to furnish vitrified brick for 40,000 sq. yds. of paving at Houston, Tex. I. Austin Miller, Cy. Engr., Houston, informs us that the brick made by this company compares favorably with any Eastern brick and some of it is already in use in that city. The brick is laid on 5 ins. concrete in the business section and on 6 ins. gravel in residence sections. It costs $2.05 a sq. yd. on concrete and $1.60 on gravel foundation.

BRAMHALL & KNIGHT, Mills Bldg., San Francisco, have been appointed the sole selling agents of the Jewett & Blodget and Pacific Refining Co.'s outputs of California bitumen. They have opened an Eastern office at 32 Broadway, under the management of Mr. T. Hugh Boorman. They supply the different grades of bitumen from liquid maltha for fluxing purposes to the hardest quality required by varnish and paint manufacturers. Colonel Bramhall is in New York this week, and will not return to the Pacific Coast for a few days.

THE AMERICAN PALACE CAR CO. was incorporated at Albany, N. Y., Dec. 14, with a capital stock of $5,000,000, of which $4,000,000 is common and $1,000,000 preferred. The directors are Joseph H. Hoadly, William J. Arkell, Daniel S. Brown, Leroy W. Baldwin, Henry K. Davis, George E. Bouchie and Prescott G. Sherer, of New York; George G. Denham, of Boston; Henry W. Burgett, of Brookline, Mass.; W. S. P. Melvin, of East Orange, N. J., and George H. Worthington, of Cleveland, O. Press reports state that the company will not become a competitor to the Pullman Palace Car Co., but intends largely to operate in Europe.

THE ALBERGER CONDENSER CO., 95 Liberty St., New York, has been organized to manufacture an improved line of condensing apparatus, vacuum pumping machinery and cooling towers, especially adapted for use in electric lighting and railway power stations, steel mills, and blast furnaces. Louis R. Alberger, President, and Gen. Mgr., has for 13 years been in charge of the condenser department of Henry R. Worthington. George Q. Palmer, Vice-Pres., is Manager of the Quintard Iron Works, New York, which has machinery well fitted for the manufacture of the apparatus of the new company. B. W. Pierson, Secy. and Treas. D. H. Chester and Geo. P. Symonds, the other members of the company were also formerly with Henry R. Worthington from 7 to 20 years each.

JOHN EICHLEAY, JR., Pittsburg, reports 37 contracts recently filled by him for steel structural material, including beams from 3 to 24 ins., channels from 3 to 15 ins., etc. He has ample facilities for prompt cutting and delivery of materials wanted. Some of the more important orders filled outside of Pittsburg and vicinity were from the following: Pennsylvania R. R. Co., Verona, Pa.; Mosher Mfg. Co., Dallas, Tex.; Loew Filter & Mfg. Co., Cleveland, O.; Otis Elevator Co., Rochester and Chicago; Page Woven Wire Fence Co., Monessen, Pa.; Columbian Fire Proofing Co., Bloomington, Ind; A. B. Day Foundry Co., Knoxville, Tenn.; Ashland Sheet Metal Co., Ashland, Ky.; Fanning Mfg. Co., Chicago; Laconia Car Co. Works, Laconia, N. H.; Stilwell-Bierce & Smith-Valle Co., Dayton, O.; Egleston Bros. & Co., New York.

PAWLING & HARNISCHFEGER, Milwaukee, report that during the past 30 days they have booked the following orders for electric traveling cranes and electric hoists: Midvale Steel Co., Philadelphia, one 150-ton, two 5-ton jibs and one 10-ton jib; Bethlehem Steel Co., So. Bethlehem, Pa., one 25-ton; Jackson Iron & Tin Plate Co., Clarksburg, W. Va., one 20-ton; Frank Darling, Vancouver, B. C., one 5-ton; Tacoma Smelting Co., Tacoma, Wash., one 20-ton; Jeffrey Mfg. Co., Columbus, O., one 25-ton and three 5-ton; Schloss-Sheffield Steel & Iron Co., Birmingham, Ala., one 15-ton; Colonial Steel Co., South Monaca, Pa., two 3-ton; R. J. Schwab & Sons Co., Milwaukee, one 10-ton; Commonwealth Electric Co., Chicago, two 8-ton and one 10-ton; J. I. Case T. M. Co., Racine, Wis., one 10-ton; Sullivan Machinery Co., Chicago, one 15-ton; McDonough Mfg. Co., Eau Claire, Wis., one 6-ton; S. Freeman & Sons Mfg. Co., Racine, Wis., one 5-ton; Wm. Bayley & Sons Co., Milwaukee, one 5-ton; Wisconsin Traction, Lt., Ht. & Pwr. Co., Appleton, Wis., one 20-ton; Am. Steel Foundry Co., St. Louis, one 5-ton; Pennsylvania R. R. Co., West Philadelphia, one 3-ton; Allis-Chalmers Co., Milwaukee, four 10-ton; McClintic-Marshall Construction Co., Rankin, Pa., one 20-ton.